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THE UNIVERSITY OF
The City
Wisconsin
Archeologist

Vol. 5

January 1926,
NEW SERIES

No. 1

Indian Caves in Wisconsin



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

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THE WISCONSIN ARCHEOLOGICAL SOCIETY MILWAUKEE

The Society is a state department, receiving a part of its support from the state. Its funds are under state control. Its work is well and widely known. It has received the approval of leading American archeologists, who agree that it deserves the full support of all Wisconsin citizens interested in the state's archeological history.

The Society's activities comprise the location, recording, investigating, and preservation of Wisconsin Indian remains, folklore and history, all of which are rapidly disappearing and must be recorded and saved immediately if ever.

Through its efforts many fine groups of Indian earthworks and other aboriginal monuments and remains have been permanently preserved to the public. Most have been marked with descriptive metal tablets. Others are being protected. Surveys and explorations have been conducted in many sections of the state.

It is also engaged in encouraging the establishment of public museums and collections and in discouraging the manufacture and sale of fraudulent antiquities.

During nine months in the year regular monthly meetings of the Society are held at Milwaukee. Field meetings are held during the summer. All are open to the public.

The results of its research and other activities are made known through its regular quarterly publication. The Wisconsin Archeologist. Twenty volumes have appeared. The Society has a large membership distributed through every part of the state.

It is co-operating to the fullest extent with all of the various scientific and educational organizations and institutions of Wisconsin.

The Wisconsin Archeologist

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WISCONSIN ARCHEOLOGICAL SOCIETY
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Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.

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The Wisconsin Archeologist

Published Quarterly by the Wisconsin Archeological Society

Vol. 5

MADISON, WIS., JANUARY, 1926
New Series

No. 1

INDIAN CAVES IN WISCONSIN

CHARLES E. BROWN

In his "Physical Geography of Wisconsin", published by the Wisconsin Geological and Natural History Survey, in 1916, Dr. Lawrence Martin devotes several pages to a discussion of some of the numerous caves in Wisconsin and to the causes for their existence. "Parts of the Driftless Area abound in sink holes and caves and these have been produced chiefly by the solvent action of the underground water, aided by the abundant joints in the rock.

The sink holes are sometimes at the entrance of caves. They are circular or elliptical depressions, some dry, others containing ponds. They are still being formed by solution and by falling in of cavern roofs and entrances is shown by the recent killing of trees adjacent to some sink holes, as near Blue Mound." The shallow caves in the Mississippi River bluffs, he states, are due to weathering.

He mentions some of the better known caves of the state, among them Eagle cave, northeast of Blue River, and John Gray Cave near Rockbridge, both in Richland County; Bear Cave near Boscobel, and Wauzeka Cave near Wauzeka, both in Crawford County, and Blue Mound Cave near Blue Mounds and Richardson Cave near Verona, both in Dane County. Blue Mound Cave has a total length of 250 feet, John Gray Cave of 710, Bear Cave of 800, and Eagle Cave of 960 feet. Of these he gives outline maps.

"There are doubtless scores of other caves and they are practically all within the Driftless Area. The lead and zinc district abounds in natural caves. Indeed the mining in early days consisted in some cases only of the removal of lead deposits that lined caverns and cavities. Many of these were small, but certain of them contained chambers as much as 35 feet long and 6 or 8 feet wide. The cavern just cited was 60

feet below the surface." "The Bear Cave has two levels, the upper one containing one room 60 feet wide, 65 feet long, and 40 to 60 feet high, while the Eagle Cave has one room 100 feet wide and 30 or 40 feet high. There are many other caves whose entrances have recently been blocked by falling in of rock, as is well known to farmers on the limestone uplands of the Driftless Area."

"Several of these caves contain stalactites and all are more or less filled with mud. Enlarged fissures extend below the bottoms of some caves."

Archeologists have visited a considerable number of the caves of southern and western Wisconsin but only a very small number have been found to show traces of their former use by the Indians as more or less permanent habitations, temporary shelters or burial places. Many of the underground caves were dark, damp and muddy and therefore not habitable. Some others have been, and some are still rattlesnake dens. These reptiles being regarded as sacred by some, if not all, of the former Indian tribes of the state it is not likely that they would wish to disturb them in their retreats

The purpose of the present paper is to describe the caves which have been found to contain Indian remains and thereby to encourage members of the state society, who have the opportunity to do so, to visit and investigate others in the vicinity of their homes or elsewhere in the state.

SAMUEL'S CAVE

A description of this interesting cave habitation was published by Rev. Edward Brown in the Wisconsin Historical Society Collections (V.8), in 1879.

"This curious cavern is situated on the farm of David Samuel, in the town of Barre, four miles from West Salem, and eight miles from La Crosse, on the north-west quarter of section twenty, of township sixteen, range six [La Crosse County].

"It was discovered in October, 1878, by Frank Samuel, a son of the owner of the land, eighteen years of age, who had a trap for racoons at a hole of considerable size in the hill. Finding that he could, with a little difficulty, crawl into the aperture, which had been dug by wild animals through a land-slide, at the foot of a cliff of Potsdam sandstone, he entered, and finding that it opened into a spacious cavern, he procured lights, and with



PLATE 1
Pictographs, Samuel's Cave, West Salem.

two older brothers and a friend, explored it. They found the walls extensively covered with pictures and hieroglyphic characters, and charcoal paintings. It thus became known to a few neighbors, and a few boys, who in the winter resorted to it and built fires and carved their names and their own pictures.

“About the first of June, 1879, I heard of such a cave with such pictures and characters, and immediately visited it. I quickly saw that there was something of much value to the cause of archeological science; that the rude pictures were evidently quite old; that the now closed chamber had been an open cavern in the cliff, which had been closed, not less than one hundred and fifty years, by a land-slide from the hill above. A poplar tree, two feet in diameter, having one hundred and twenty growths of circles, stood as a dead tree twenty-five years ago, when Mr. Samuel first came here, and had rotted and fallen; and a birch tree stood upon the edge of the cliff where the land-slide had passed over, of from one hundred and fifty to one hundred and sixty annular growths.

“I visited Mr. Samuel and informed him of the value to science of the inscriptions and possible discoveries to be made by digging. He immediately took measures to stop the vandalism that was fast destroying them; to enlarge the opening, and clear out the sand that had been washed in from the land-slide, and half filled the cave. In the meantime I took *fac similes* of the pictures and characters by pressing tissue paper into the grooves, and with black crayons followed each line to its termination, preserving also its original width. In this way I got perfect outlines; and placing other sheets over them, in the light of a window pane, took small copies that showed the pictures in their original form and size. I sent one set to Prof. Chamberlin, State Geologist, not intending to make anything public till an examination had been made by an archeological expert, and their value to science ascertained. In the meantime, it having become noised about that I was examining such a cave, I was called upon by the local editor of the “Chronicle”, of La Crosse, to whom I gave copies of some of the most prominent of the pictures, from which hasty and imperfect wood-cuts were prepared, which appeared in the “Chronicle”.

“The article was seen by Mr. Lyman C. Draper, Secretary of the State Historical Society, who wrote to me for information in regard to it. I sent him copies of the pictures, so far as I had

taken them, and designated a time—June 27th—to dig into the bottom of the cave, requesting him to come, or send a competent archeologist. He communicated with Dr. John A. Rice, of Merton, Waukesha county, who came at the time appointed, with Mr. Rockwell Sayer, of Chicago. A company of seventeen men repaired to the place, with shovels, wheel-barrows, and other necessary things for exploration. Several intelligent ladies also attended and prepared dinner.

“Commencing at the back end of the cave, the sand was carefully dug up and wheeled out, every load carefully inspected, and the work continued until the whole had been examined. We came upon four layers of ashes, each from four to six inches deep, and containing charcoal, and burned and nearly vitrified sand-rock. They were separated from each other throughout the whole length and breadth of the cave by layers of clean, white sand, of from ten to fourteen inches in depth. Below the whole was water, of the same level as a marsh that lies in front of the cliff. The lower stratum of sand and ashes contained nothing. In the second were fragments of pottery made of clay and round shells. These were smooth and of the oldest kind found in mounds. In the third, more elaborately wrought pottery, the newest found in mounds; with numerous fragments and whole sides of Mississippi river bivalve shells, and a bodkin of bone, seven inches long. This, according to the opinion of old hunters, was the “hock-bone” of an elk. It was in dry, white sand, and is quite sharp and smooth with use, and in a perfect state of preservation, even retaining the glassy polish of wear and handling, as if used but yesterday.

“All the layers had become compact and well stratified, and all contained bits of charcoal, and charred and rotten wood. In the upper layer we found two bones of birds, and two of small mammals, and a “dewclaw” of a deer, and a cartilaginous maxillary of a reptile. The four completely diffused strata of ashes, separated by a foot average of clear sand, showed that there had been four distinct periods of occupancy, separated by considerable intervals of time. This was also indicated by two orders of pottery, one always below the other; but nothing to measure the time. The only conclusion we could arrive at was, that the first occupation was very ancient, and the last before the land-slide, or not less than one hundred and fifty or one hundred and sixty years ago. The zone of the pictures agreed best, for con-

venience of engraving, with the third occupancy, the age of the figured pottery.

“Before the land-slide, it was an open shelter cavern, fifteen feet wide at the opening and seven at the back end. Greatest width, sixteen feet—average, thirteen; length, thirty feet; height, thirteen feet; and depth of excavation, after clearing out the sand of the landslide five feet. The pictures are mostly of the rudest kind, but differing in degree of skill. Except several bisons, a lynx, rabbit, otter, badger, elk and heron, it is impossible to determine with certainty what were intended, or whether they represented large or small animals, no regard being had to their relative size. A bison, lynx and rabbit are pictured in one group, all of the same size. One picture perhaps suggest a mastodon; another, the largest, a hippopotamus; but whether they were really intended to represent those animals is quite uncertain. Others seem to refer to animals yet in existence. Many pictures are fragmentary by the erosion of the soft sand rock on which they are engraved. In one place is a crevice eight feet long, two feet high, and extending inward two and a half feet, with fragments of pictures above and below.

“The appearance and connection of the pictures and characters indicate that they were historical, rather than engraved for mere amusement, and suggest that thorough exploration of caves may yet shed much light on the history of the pre-historic Aborigines of our country.

“While these representations are exceedingly rude, it is deemed best to preserve tracings of them, to subserve the investigations of archaeologists. They are made by placing thin paper over the engravings or paintings, pressing it down and tracing the lines with crayons. The more important of them are herewith subjoined, having been engraved by Messrs. Marr & Richards, of Milwaukee, in reduced size, with care and accuracy: (See Plate 1)

“No. 1, perhaps, suggests a mastodon, and has the oldest appearance of any in the cave. The size of the original is sixteen inches long, by ten and a half inches from the top of the head to the bottom of the feet. No. 2, perhaps, indicates a bison, or buffalo, and is the best executed picture of the whole collection. Its size, nineteen inches long, by fifteen and a half inches from tip of the horns to bottom of the feet. No. 3, perhaps, a hippopotamus—or, perhaps, a bear; the rear portion crumbled

off, and the largest representation in the cave. It is twenty-eight inches long, and thirteen inches from the hump to the feet. No. 4, an elk with its hunter, whole length eighteen inches the animal is ten inches long by fourteen from tip of front prong of horns to the feet; the Indian, partly defaced, eleven and a half inches high, by four inches from end of arms to the opposite side of the body. The weapon is nine by five inches.

"No. 5, represents a hunter, with a boy behind him, in the act of shooting an animal, with his bow and arrow weapon. The whole representation is twenty-five inches long; the animal from tip of tail to end of horn or proboscis, twelve inches, and from top of head to feet, seven inches; the hunter eleven inches high; the boy four and a half.

No. 6, is a group of five figures, representing perhaps a bison, a lynx, a rabbit, an otter, and a rudely formed man—or possibly a bear in an erect attitude. The group, for the convenience of the engraver, is not arranged as in the cave—the figures in the original were in single file, covering a space of three and a half feet in length. The bison, the upper left hand figure, is twelve inches long, eight inches from top of the horns to bottom of the fore feet, and nearly ten inches from tip of the tail to the hind feet.

The lynx, the lower left hand figure, is ten and a half inches from the tip of the nose to the tip of the tail, five and a quarter inches from the tips of the ears to the fore feet, and eight inches from the tip of the tail to the hind feet. The otter, the upper right hand figure, is eight and a half inches from the tip of the nose to the end of the body, while the tail is seven and a half inches long; from the top of the rump to the hind feet five inches; and four inches from the top of the shoulders to the fore feet. The rabbit, the lower right hand figure, is ten and a half inches from the nose to the end of the tail, five inches from the top of the neck to the fore feet, and five and a quarter inches from the top of the rump to the rear hind foot. The upright figure, in the center, is seven and a half inches tall, and three inches from the end of the arm to the back of the body.

"No. 7, represents, perhaps, a badger, thirteen and a half inches long, four inches and three-quarters from the top of the head to the fore feet, and three and a half inches from the rump to the hind feet.

"No. 8, an Indian painted on the wall, and the rude drawing of an animal cut in the rock occupying the relative positions

represented in the engraving. The animal is sixteen and a half inches from the lower extremity of the head to the tip of the tail, and seven and a quarter inches from the rump to the rear hind foot; while the Indian figure is ten inches in height, and nine and a half inches from the end of one arm to that of the other. No. 9, represents a wounded animal, with the arrow or weapon near the wound. This figure is twenty-one and three-quarter inches from the lower extremity of the nose to the tip of the tail; eight and three-quarter inches from fore shoulders to the front feet, and eight inches from the rump to the hind feet. The weapon is four and a half inches long, by five inches broad from the tip of one prong or barb to that of the other. It may be remarked that the two prongs or barbs of the weapon, or arrow, in this figure are doubtless altogether too long and disproportioned. We are justified in this supposition from the general fact of there being no recognition of the relative sizes of the animals represented in the several figures in the cave.

“No. 10, an animal, fifteen and a half inches long, eight from top of rump to the hind feet, six inches from the fore shoulders to fore feet, and four inches from top of the head to the end of the nose. No. 11, probably a bison or buffalo as the hump indicates, painted on the rock with some black substance. From the nose to the end of the body, eleven inches; eight and a half inches from the hump or shoulders to the feet, and seven and a half inches from the rump to the hind feet. As the tongue protrudes, the animal would seem to be in the act of bellowing for its fellows or its young. No. 12, a heron; from end of bill to the toes, seventeen and a half inches, and four inches from the top of the back to the opposite part of the body. No. 13, perhaps designed to represent a canoe, twenty-eight inches across from the extreme point to the other, and five and a half inches from the top to the bottom of the largest point. No. 14, a chief with eight plumes and a war club; eleven inches from the top of the head to the lower extremity and six inches and three quarters from tip of the upper finger to the end of the opposite arm. The war club six and a half inches long.

“No. 15, implements or weapons; the engraving thirteen inches by nine—the one on the right, with a handle, eight and a half inches long; and the arrow beside it, nine inches. No. 16, perhaps an altar, with its ascending flame; twelve inches in height, by nine wide. No. 17, perhaps a representation of flames, or it may be designed to represent ears of corn. Twenty-

four inches in length by seventeen in breadth; the longest flame, or ear, ten and a half inches, and an inch and a half thick; the smallest three inches long, and three-fourths of an inch thick."

Following Rev. Brown's article in this number of the "Collections" there is another, shorter, article by Dr. John A. Rice, who with Rev. Brown, and Revs. A. Clark, P. Hitecock and J. C. Webster, conducted the exploration of the Samuel's, or, as he refers to it, "Pictured Cave". The information given by him is substantially the same as that given by Rev. Brown. He describes the roof of the cave as an irregular arch. "In regard to the antiquity of these drawings there can be no question, for some of them were covered with sand, and besides I found pieces of the rock buried in the sand, which had fallen from the sides, with portions of the inscriptions upon them, which fact must be regarded as proof positive of a greater or less antiquity.

"Now, as to the conclusions to be drawn from the representations here found, and which are the only objects of interest. The fact that we found four distinct and separate layers of ashes, with pottery in two of them of a different color and make, would certainly indicate four separate and distinct occupations of the rock shelter, each occupying a greater or less length of time, and when we recollect that the Indian always contents himself with the smallest possible amount of fire, and take into consideration the thickness of the layers of ashes, it is fair to conclude that each occupation of the cave must have continued some considerable period of time. The layers of sand are easily accounted for, as resulting from the disintegration of the soft rock above the cave, as it fell down from the edge of the cliff which would naturally drift into the cavern or shelter, and, more or less, rapidly, make the layers mentioned; and although the rock of the sides and roof of the cave are quite soft, the disintegration has been exceedingly slow, as there has been no percolation of water, and especially since the closure of the opening the forest has not acted upon the walls, so that the change since that time at least has been very slight indeed, and accounts for the well preserved condition of the pictures.

"It is, perhaps, impossible to say during which of these occupations of the shelter the drawings were made; but taking into consideration the height of the zone of pictures above the

first and second occupations, they could hardly be referred to either of these, and therefore must have been made during the third or fourth occupation, and from the proof positive of the closure of the cave for a period of at least one hundred and fifty years, a considerable antiquity must be allowed."

He mentions the resemblance of some of the pictographs in the cave to Sioux picture writing.

Careful search was made for human bones but none of these were found. "It is remarkable that so few animal bones were found, as we would expect, from the great amount of ashes, and the length of time the place has been occupied, to find the bones of animals used for food; but this can be accounted for from the fact that it was an open shelter, and the bones so used would have been in all probability, thrown out of the opening into the lake or marsh, as the case might be, and an examination of this locality, I think, would reveal considerable refuse of this kind; but the sand resulting from the land slide, and that wheeled out of the cave, would make this a matter of considerable labor, so much so that while there I had no time to make it."

The bone implement and the potsherds and copies of the drawings were, Dr. Rice states, presented to the State Historical Society. Rev. Stephen D. Peet, in his "Prehistoric America, V. II" reproduces and discusses the pictographs in the Samuel's Cave.

A brief description of Samuel's Cave was also given by Prof. Theodore H. Lewis in a paper on "Cave-Drawings" contributed by him to Appleton's Annual Encyclopaedia, 1889. "It is near the foot of the hill that rises about 70 feet above the valley, and until within a few years its existence was unknown, the entrance having been covered by the gradual accumulation of debris washed from the slope above. On the side walls and lower slope of the roof are outline figures, as well as paintings having a bluish-black color. The latter are covered with a thin glazing or coating deposited from disintegrated limestone. There are outline carvings representing men, animals, birds, etc." He gives an illustration of the "elk" figure, which, he says, "covers a space about one foot square."

Mr. G. W. Garlock, editor of "The Nonpareil Journal" of West Salem, writing (February 28, 1921) in response to a letter of inquiry addressed to him, says of the present condition of this cave: "I understand that when it was first located many years

ago there were pictures on the wall, probably the work of Indians, and also articles of Indian handiwork in the cave. No attempt has ever been made to preserve the cave in its original shape and the pictures have been defaced by persons who visited it until nothing now shows of the original pictures and markings on the wall.”

“In a wet time one needs rubber shoes or possibly boots to reach the cave, because there is no track to it, though only a few rods laid from a traveled road would free visitors from clutching bushes and fear of snakes.”

TREMPEALEAU ROCK SHELTER

The “Sculptured Rock at Trempealeau” was described by Prof. T. H. Lewis in the *American Naturalist**:

“Last November, whilst surveying mounds in the upper Mississippi valley, my attention was called to some rock sculptures located about 2½ miles northwest from Trempealeau, Wisconsin. There is at the point in question an exposed ledge of the Potsdam sandstone extending nearly one-eighth of a mile along the east side of the lower mouth of the Trempealeau river, now known as the bay. Near its north end there is a projection extending out about seven feet from the top of the ledge, and overhanging the base about ten feet. The base of the ledge is forty feet back from the shore, and the top of the cliff at this point is thirty feet above the water. On the face of the projection, and near the top, are the sculptured figures referred to.

“No drawings or descriptions of these fine specimens of ancient work having ever been published, I thought it best to copy them for the inspection of archeologists in a printed form. Whatever distinct markings were originally cut upon the face of this rock are doubtless there now, and the group as traced is complete and entire, and in its primitive condition, for it has not been mutilated by man or perceptibly injured by exposure to the elements. Great care was taken to obtain correct tracings, the size of nature, and these, having been reduced by pantograph, the copy remains an accurate facsimile of the original.

The center part of the rock projection on which these figures appear, faces to the west, the sides falling back at a somewhat obtuse angle to the parent ledge. Owing to the horizontal extent of the space covered by the carvings they cannot well be

*See 1889, 782-784.

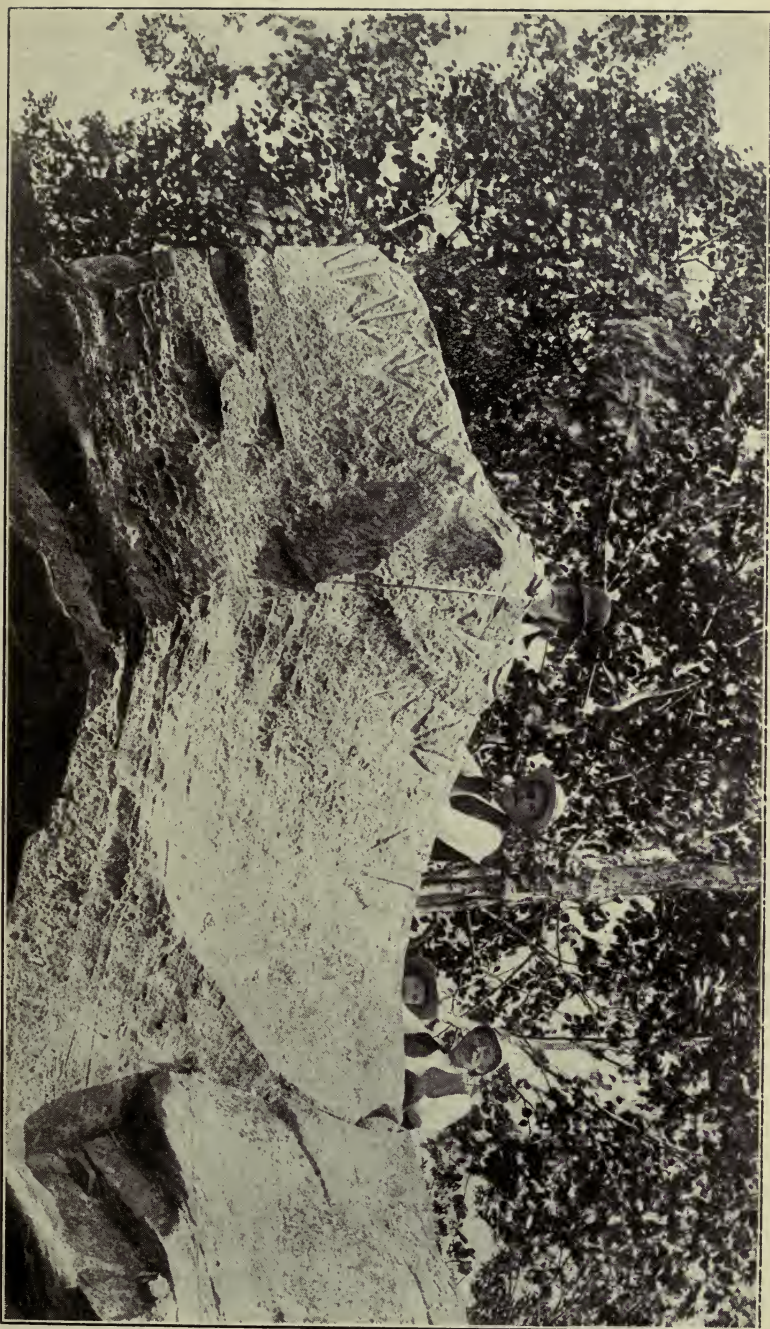


PLATE 2
Pictographs, Trempealeau Rock Shelter.

shown in one connected drawing, so they are divided here for convenience into three groups of nearly equal size. The following detailed description accounts for all the separate forms, and they are numbered in their natural order from left (north) to right. [See Fig. 1 of this issue of *The Wis. Archeologist*.]

North Face

Fig. 1 is an outspread hand $13\frac{1}{2}$ inches long.

West (Front) Face.

“Fig. 2 is an outspread hand $16\frac{1}{2}$ inches long. The thumb is cut through the angle of the rock and ends on the north face. The middle finger also extends to the top surface of the rock.

Fig. 3 is an outspread hand $17\frac{1}{4}$ inches long. The two hands (2 and 3) are apparently right and left hands, the little finger of one overlapping that of the other.

Fig. 4 is an outspread hand nearly $13\frac{1}{2}$ inches long.

Figs. 5, 5, are five so-called canoes. They are somewhat crescent shaped, but all vary more or less in outline.

Fig. 6 has the same form as the preceding, but the additional upright portion overlaps it.

Fig. 7 and 8 are also of the same form as 5, but 7 is cut in the bottom of 8.

Fig. 8 probably represents a fort, and its length is $18\frac{1}{2}$ inches.

Fig. 10 is a nondescript, and it partly overlaps 8.

Fig. 11 is a nondescript four-legged animal. Its length in a straight line from the end of the nose to the tip of the tail is $10\frac{1}{2}$ inches.

Fig. 12 may be intended to present a foot, but possibly it may be a hand. It is $7\frac{1}{2}$ inches in length.

Fig. 13 is an outspread hand a little over 13 inches long.

Fig. 14 undoubtedly represents a foot, and it is $4\frac{1}{2}$ inches long.

Figs. 15, 15, are of the same class as Fig. 5.

Fig. 16 has the appearance of representing a bone, although somewhat distorted.

Fig. 17 is an outspread hand nearly 14 inches long.

Fig. 18 is an outspread hand about $6\frac{3}{4}$ inches long.

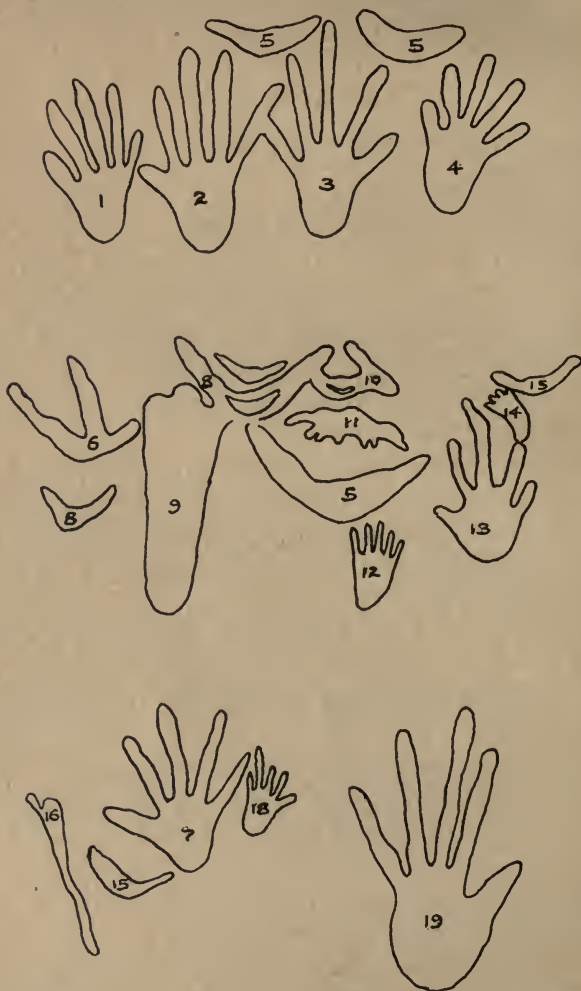


FIG. 1
Pictographs, Trempealeau Rock Shelter.

Fig. 19 is the largest hand, and deserves a more particular description. The palm is 10 inches long and $8\frac{1}{4}$ inches wide.

The length of the thumb is $5\frac{1}{4}$ inches, of the index finger $10\frac{3}{4}$ inches, of the middle finger $13\frac{1}{2}$ inches, of the ring finger $11\frac{1}{2}$ inches, and of the little finger $9\frac{1}{4}$ inches.

“These figures are sunk in throughout—intaglio—instead of being mere outlines, and vary in depth from a quarter of an inch to fully one inch. Although the surface of the rock is rough the grooves were rubbed perfectly smooth after they were pecked or chiseled out.

“Such is a concise account of one of the most interesting antiquities of the country lying between the Trempealeau and Black rivers, and I feel gratified if by my instrumentality it shall be rescued from oblivion.”

An illustration of the carvings on the ledge of this rock shelter are shown in Plate 2.

This ledge with its pictographs is reported as having been destroyed by quarrying or blasting operations. Ashes, charcoal, and potsherds found in this shelter indicated its former Indian occupation.

GALE'S BLUFF CAVE

“The Antiquities of Wisconsin,” by Dr. Increase A. Lapham, published in 1855, gives a brief description of a cave which contained an Indian burial. “On the eastern border of this prairie (La Crosse prairie) are some very high bluffs, presenting towards the top perpendicular cliffs of limestone. On one of these, known as Gale's Bluff, we found a very large crevice or cave, in which, among some loose stones and sand, were several human bones; and a skull had been taken from the same place. No bones of animals could be found. The rock above the cave is perpendicular for a great height.

On the south side of the entrance are some markings, doubtless of aboriginal origin, and possibly intended to record the virtues of the person or persons whose remains are there deposited. The marks are on a soft, yellow, granular limestone; often mistaken by casual observers for sandstone. They are not deeply impressed, and have evidently been affected by the crumbling of the surface.”

Lapham's illustration of these rock inscriptions is reproduced in Figure 2. These consist largely of groupings of perpendicular, diagonal, zigzag and curved lines and an inverted crescent.

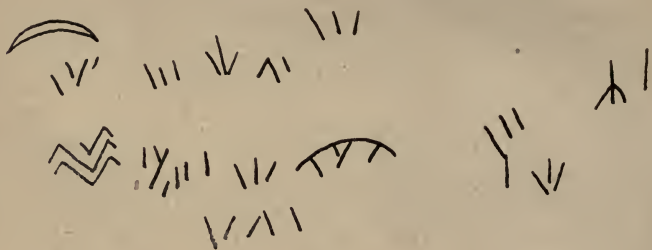


FIG. 2
Rock Inscriptions, Gale's Bluff Cave.

SUTTEE FARM CAVE

Mr. F. O. Reisinger of Madison, reported to the Society that in about the year 1919 he explored the then remaining portion of a small cave situated in the side of a hill on the William Sutte farm in Glasgow Township, Trempealeau County. This hillside overlooks the bed of a creek tributary to the Black River. The entire front of this hill had caved away and exposed a small circular hole at a height of about sixteen feet above its base. Mr. Reisinger ascended to it by means of a ladder and in it, among the leaf mold in its interior, found a fine triangular stone adze, and, farther in, some flint chips and fragments of an earthenware vessel.

This cave was very low and narrow, extending into the hill for some twenty feet. It could be entered only by crawling on one's hands and knees. The actual front of this cave had gone down with the caving away of the front of the hill.

"INDIAN" CAVE

This small, but interesting cave, is situated on the top of a wooded ridge, on land belonging to a Mr. E. Potts, in Section 12, Forest Township, in Richland County. This locality is in the rough and rugged country about two miles west of the village of West Lima and five and a half miles from La Farge, in Vernon County. The ridge is about six hundred feet south of the valley road between the two places. Another ridge rises above

this road on the south side of which, not far from the cave, is a country school house known as the Muller District school.

The cave is on the eastern side of a much-eroded outcrop of weathered white and brown sandstone. It is about sixty-five or seventy feet above a small valley which separates this ridge from another wooded ridge a few hundred feet away on the east side of the valley. The ridge slope leading to the cave is quite steep and the climb to its mouth is made with some difficulty.

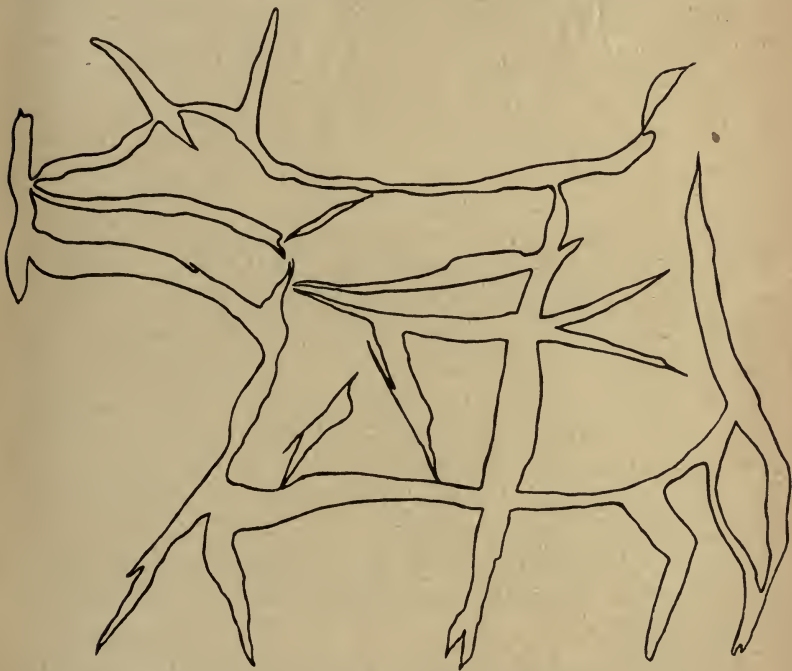


FIG. 3
Animal Figure, Indian Cave, Richland County.

The total length of the cave is 23 feet, its width at its arched entrance being $17\frac{1}{2}$ feet and its height $6\frac{1}{2}$ feet. Above the entrance the overlying sandstone is 2 feet thick. From its mouth the cave narrows gradually toward its southern end within 4 feet of which its width is 44 inches and its height 18 inches. At the middle of the cave, opposite the petroglyphs, the distance from the cave floor to the roof is about 40 inches. The width of the floor at this place is about 5 feet. The floor of the cave

is of loose brown sand, near the entrance from 1 to nearly 2 feet in depth and becoming shallower towards the end of the cave where its depth is from 1 to 2 inches. The roof is for the most part rather flat and it and portions of the walls are much blackened by the smoke of candles, stick torches and lanterns used by visitors to this shelter.

The petroglyphs are nearly all on the east wall of the cave, the nearest at a distance of 10 feet from its mouth. The total length of this line of rock carvings is 58 inches. At the end nearest the mouth of the cave the carvings are 22 inches above the floor and $11\frac{1}{2}$ inches below the roof, at the middle 19 and 10 inches and at the southern end of the line 24 and 9 inches. The height of the principal figures in the line of carvings is from 7 to 9 inches. The sandstone wall in which these figures are cut is fairly hard, much harder than the wall in some other parts of the cave, where it is easily cut or scratched. The cutting was probably done with a stone knife or sharp-edged stone, although a metal knife may have been used for this purpose. The cave, even in broad daylight, is rather dark near the figures and a candle or other light is needed to clearly make them out. The wall is not very smooth and the line of carvings is in several places crossed by small transverse cracks. The cuts outlining the figures are from $\frac{1}{8}$ to about $\frac{1}{2}$ inch wide, some of the deepest being nearly $\frac{1}{2}$ inch in depth at their deepest parts. Some have the appearance of having been cut with an implement, the blade of which varied in thickness.

Beginning at the end of the line (that nearest the entrance of the cave), the principal figures in the petroglyph on this wall are as follows:

1. A seated figure of a man with marks on his chest, the latter arranged in three pairs. Height of figure $8\frac{1}{2}$ inches, width across the chest $3\frac{1}{2}$ inches.

2. Seated figure of a man facing the other. Height $7\frac{3}{8}$; $1\frac{1}{8}$ inches across the chest.

3. A figure of a man standing or walking toward the foregoing with arms partly upraised. Three small cuts above the head may represent feathers. Height 8 inches, width across the body at the shoulders $3\frac{1}{4}$ inches.

4. Figure probably intended to represent a bent bow. One cut crossing it and three diagonal marks beyond it may be intended to represent arrows. Height of bow $7\frac{1}{2}$ inches, width across at its middle, $2\frac{1}{2}$ inches.

5. A hand-shaped figure. Height and width each 4 inches.

6. Figure of an animal, probably representing a dog or wolf. A curving line extends from the nose through the body. Length of figure 7 inches, height $6\frac{1}{2}$ inches.

7. A hand-shaped figure. Height 7 inches, width 5 inches.



Pictographs in Indian Cave, Richland County.



Pictographs in Minnesota and Iowa Caves.



Nearly vertical, diagonal and curved lines of unknown significance are between some of the several figures. A curious small figure, which may be intended to represent a bird, is located near the shoulder of the first seated human figure. An undulating horizontal line is cut beneath all of the figures.

On the opposite wall of the cave, at a distance of a foot above the floor, there is an imperfect carving suggesting the head of a man. Near it is cut another rude figure, probably an animal. The height of the animal figure is $6\frac{1}{2}$ inches. The body of the man has disappeared in the crumbling of the rock. At this place the wall is of a light brown color and the carving has a fresh and somewhat more recent appearance than the other figures. The carvings in this small cave have been known to settlers in this valley for many years. One of these men, a Mr. Hyde, stated in 1922 that he had known the carvings for fifty-four years. They are very Indian-like in their character and there is no present reason to believe that they were cut by other persons.

This cave was probably used as a shelter by Indian hunters, one of whom was the maker of these rude carvings which are but slightly weathered and do not suggest any great age. They may even have been cut by a native after white men first began to roam through and settle in this region of wooded ridges and fertile valleys.

Mr. Wallace Fruit of Viola first informed the Wisconsin Archeological Society of the location of this cave in a letter dated November 6, 1920. His niece, Miss Ethel T. Rockwell, of Madison, had heard of the cave and referred the Society to him. On November 1 an exploring party consisting of the writer, Mr. H. E. Cole, Mr. M. S. Crandall and Mr. T. T. Brown visited the cave under the guidance of Mr. Harold Jewell, a resident of the country near West Lima. At this time measurements and photographs of the cave were made and also photographs, drawings and impressions of the carvings. The earth and sand at the entrance and the sand floor of the cave were carefully dug over down to the undisturbed sandstone rock but no ash bed, implements or other indications of Indian occupation were found. This cave, though small would provide shelter for at least a dozen people.

Four sections (1 and 2, 11 and 12 of Forest Township) corner in this valley, between these ridges. A creek flows through

the valley and is at this place fed by two spring brooks. A short distance southeast of the Muller school, near the old Donaldson house, and only a short distance from the cave, flint implements and several stone axes have been found in a small cultivated field, a former Indian camp site.

MINNESOTA AND IOWA CAVES

CARVER'S CAVE

Prof. T. H. Lewis* has described some other Indian caves located in Minnesota and Iowa. Among these he mentions Carver's Cave, "a cave within the limits of the capital city of Minnesota [St. Paul], which for over a century, has had a somewhat undeserved celebrity, which was given to it by Capt. Johnathan Carver in 1766-67." In his description he mentions the incised figures as follows: "I found in this cave many Indian hieroglyphics; which appeared very ancient, for time had nearly covered them with moss, so that it was with difficulty I could trace them. They were cut in a rude manner upon the inside of the wall, which was composed of a stone so extremely soft that it might be easily penetrated with a knife—a stone everywhere to be found near the Mississippi." The construction of a railroad some years ago, which necessitated the demolition of the front part of the cave, together with the confusion made by the intrusive names of modern visitors and idlers, ruined the aboriginal pictographs in it, of none of which is a copy known to have been made. Ten years ago there were plainly to be seen snakes, birds, men, animals, fish and turtles, some of which were *intaglios* and others outline figures, and they were clearly of the same style and probable age of those discovered in recent years in caves along the valley of the Mississippi.

"Since October, 1888, several caves, rock shelters, and fissures have been visited between a point a few miles below Lansing, Iowa and St. Paul, Minn., and thoroughly explored for pictographs, of which the best specimens were carefully copied. Seven of the caves are here described, in the order of the descent of the river from north to south, and at least one good representative pictograph from each, reduced in fac simile, is furnished by way of illustration."

*Appleton's Annual Cyclopaedia, 1889.

DAYTON'S BLUFF CAVE

“At the foot of Dayton's Bluff, which skirts the river in the lower part of the city [St. Paul], 50 feet northeast of Commercial street, about midway between Plum and Cherry streets, and a little over 400 feet above Carver's Cave, is a moderate sized cave, only one third the length of that one, facing to the southwest similarly. It is about 35 feet in length, measuring on the present floor to the edge of the water in the rear that in a few feet meets the descending slope of the roof; in width about 24 feet, and, at present, 10 feet high. In it are pictures of men, birds and animals, cut into the side—walls and roof, all of which are outline figures. The one illustrated here [Plate 4, 1] which is on the left hand as one enters, and quite near the floor, represents a man with uplifted hands, and is about one foot in length.”

LA MOILLE CAVE

“This is the most interesting place of its kind yet discovered. It is on the south side of Trout Brook, about a mile southeast from La Moille railroad station [Winona County, Minnesota]. The valley is somewhat of an amphitheatre, being walled in on two sides by bluffs from 300 to 500 feet high, with the land rising in high plateaus to the west and northwest. On the south side of the valley, where the brook runs near the foot of the bluff, there is a rock escarpment of Potsdam sandstone rising about 30 feet, which is perpendicular, and at this point there is an archway 27 feet wide and 9 feet high. Above the archway a large pine tree stands on the verge of the rock. From the entrance to the back part of the cave the distance is 45 feet; the length of the cave proper, which runs parallel with the outer face of the rock, is 70 feet. The roof is bell-shaped, sloping from a central point toward the bottom on all sides, and at the highest point it is 15 feet above the ground at the entrance. The floor is not level, the eastern side being the highest. Flowing from the heart of the bluff are two springs, one from the southeast and the other from the southwest, which unite on the west side of the cave, and thence flow into Trout Brook, 30 feet from the entrance. The southeast stream emerges from a low passageway, which is about 12 feet broad, and from 2 to 3 feet high, extends beyond the main cave 30 to 40 feet, and then becomes

narrower and much lower. When the Mississippi river overflows its banks the back water enters the cave, and at extreme high-water point the entrance is not over 3 feet high.

"From the accounts of early settlers in this region, it seems that the roof of the cave was once a mass of pictographs, but many of them have gradually scaled off. Traces of them may still be found. While there are a few pictures on the southeast and south walls, the southwest and west sides are covered with a crowded mass, some of them crossing or intersecting each other in all directions; and after the ravages of time and acts of vandalism, a great quantity of carvings still remain. Among them are to be found representations of men, birds, animals, snakes, fish, trees, and other things not so easily named or described.

"There are more pictographs in this cave than have been found at any other point in the Mississippi valley. Four of the figures are illustrated in this article. The fish [Plate 4, 2] is on the southwestern slope of the roof, and is about $5\frac{1}{2}$ feet long. The width between the ends of the fins is about 2 feet 8 inches. The body is excavated into the rock $1\frac{1}{2}$ inches in depth, and is perfectly smooth. The bird [Plate 4, 3] is to the right of the fish, and but a few feet distant, and covers a space of about 3 to $3\frac{1}{2}$ feet. In this instance an attempt has been made to show the wingfeathers, which (though it is not an uncommon thing to see them delineated in this region) are on a far more elaborate scale than is usually attempted. The groove extending back from the head may be intended to represent a snake with an open mouth, but as there is no similar specimen to be found among the numerous snakes (30 or more), carved upon the roof, it is not unreasonable to surmise that it may be intended to symbolize speech."

"The two snakes [Plate 4, 4 and 5] are on the west slope of the roof, and represent two types, one of which is a rattlesnake. They are grooved out from one-half inch to one inch in depth, and are perfectly smooth. In the bottom of the main groove are smaller ones, which are probably intended to represent the darker colorings on the back of the particular kind of snake delineated. Other specimens of the serpent family are represented in this cave, and are much finer and more perfect, especially as regards the rattles (in snakes of that class), and they are also larger. Similarity in size governed partly the selection for illustration of the two here given. Some of them have

forked tongues protruding from the mouth, which may be intended to represent speaking rather than hissing."

RENO CAVE

"This is on the northwest quarter of section 35, town 102, range 4, near Reno, locally known as Caledonia Junction, [Houston County, Minnesota]. It is about 150 feet above the slough, in a ledge 30 feet in height. There are carvings representing birds, men, etc., both on the face of the ledge and in the cave. The grotesque figure, or rather caricature, here illustrated, [Plate 4, 6] represents a man with large hands, and somewhat after the style of the Mexican carvings."

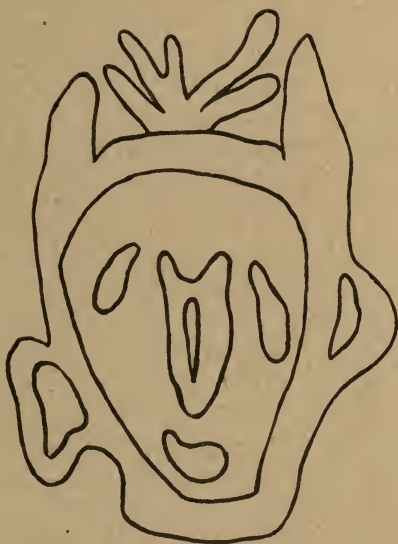


FIG. 4
Indian Head Figure
Allamakee Cave No. 1

ALLAMAKEE COUNTY CAVES

No. 1

"Above Kain's Station, on the northeast quarter of section 26, town 100, range 4 W. [in Allamakee County, Iowa], is a ledge extending along the slough for about 150 yards, which is about 25 feet in height above the water. In this ledge are a cave, several fissures, and some shelters. The figure (Fig. 4) illustra-

ted represents a human head with horns or feathers, and covers a space about 9 by 12 inches. The cave was used as a dwelling place at some period, for there are numerous fragments of partially burned bones, broken pottery, etc., bedded in the earth covering the floor. At the various other points that are mentioned above are to be found representations of hands, feet, men, birds' claws, and other objects."

No. 2

"On the northwest quarter of section 18, town 99, range 3 W., is a ledge of rock about 200 feet above the river, in which is a small cave. Among the pictures on it are several representing the human head, also snakes, animals, and canoes, or crescents. In one case the groove forming the outline of one of the heads (human) has been painted a bluish-black color, and apparently the paint is the same as that used in the Samuel's Cave, near La Crosse. The specimen illustrated [Plate 4, 7], which is about 6 by 15 inches, may represent some kind of bird."

No. 3

"On the northeast quarter of section 3, town 98, range 3 W., three or four miles below Lansing, is a ledge about 50 feet high, standing about 100 feet above the river. In this ledge are two narrow caves or fissures, known as the "Indian cave", on the walls of which were formerly a large number of carvings representing men, animals, snakes, birds, human feet, birds' and animals' tracks, human faces, crescents (canoes?) and others of a doubtful character. Many of these have been wantonly defaced until they can scarcely be traced. The one here given [Plate 4, 8], which is about 14 by 19 inches, probably represents some kind of bird."

"In copying these cave-drawings, it has been an object to get only the best specimens, for it is an impossibility to get all of them, and often it is hard to tell where there is a beginning or ending. There is no way now of determining how all this carving was done, for the grooves themselves show no other indication than the rubbing process. As for style and merit, these selected and representative pictographs must speak for themselves; and as regards their meaning, it is purely a matter of

conjecture, and the reader may draw his own conclusion as to whether religious or mythological ideas entered into their construction, or whether they were but casual records or idle work. Their antiquity, however, is great, as was proved by excavations made in the Samuel's cave shortly after its discovery in 1878—the only cave of the upper Mississippi that, up to this time, has been formally brought to the notice of antiquaries.”

Prof. Lewis was a former member of the Wisconsin Archeological Society. There is a general similarity in character between the pictographs found in caves in Wisconsin, Minnesota and Iowa.

BURIAL OF WHITE FEATHER

There is much of human interest in the burial of White Feather. This well known Winnebago Indian was spending the winter in a camp on the south bank of the Wisconsin River in the town of Caledonia, Columbia County, when he was taken ill and passed into the grey shadows early in the spring, about 1900.

James and George Graham, who resided in the neighborhood, made a coffin of boards and dug a grave on a sandy knoll located a few rods west of the highway, not far south of the Indian camp. Before being placed in the coffin the remains were enshrouded in a new blanket and before being removed from the tent a separate opening from the one he entered the last time was made. A stick, colored much like the Winnebago baskets, was placed at the head of the dead Indian and each member of the tribe marched by, stepping near but not on the stick. They left the wigwam through the usual opening.

The body was placed upon a sled and hauled to the burial site. The remains were lowered into the grave by the two Grahams and their wives, after which an educated Indian who chanced to be in the camp, offered a prayer in the native tongue. The remaining Indians then placed a board across the opening and all marched in single file along the plank, going direct to their tepees. The two Grahams then filled the grave, burying the pipe and other personal belongings of White Feather with him.

The next day the Indians came to the burial site, made some dry shavings with a knife, ignited them with a match, and ob-

served which way the smoke was wafted—if upward the spirit went to the happy hunting ground, if downward and along the ground the soul was believed to be lost. The same rites were observed the second and third days after the interment. Since the smoke did not always take the same course the observers of the strange part of the last rites were not able to determine the final conclusion, if any, reached by the tribesmen.

The burial plot is surrounded by a rude low fence made with field boulders. The first grave inside the enclosure was that of John Graham, a pioneer Scotchman in Caledonia, who died at the age of 81 years. At the time of his death the cemetery in Portage could not be reached on account of high water on the lowlands, hence the burial near his home. Others were afterwards buried in the enclosure, including some twins and half-breed Indians. Possibly not more than half a dozen persons are buried in this almost forgotten last resting place. John Graham is interred in the eastern end of the enclosure and White Feather in the western—the plot not measuring more than a few paces on either side. No individual stones indicate where the graves may be.

Since the burials were made the land has passed to other owners and the place now has a vagabond appearance, trees growing on the graves and brush roundabout. The average person passing along the highway is oblivious to the tombs in the wildwood, where grief once flowed and where strange rites were once observed.

A pair of moccasins, a large basket, a pocketbook and other gifts were made by the Indians to those who assisted with the burial.

The above recital of these past incidents was made by Mrs. Fred Milner (Formerly Mrs. Graham), Baraboo, and Mrs. George J. Williams, Portage.

H. E. COLE.

REPORT ON STATE SURVEYS

In the October-December, 1925, issue of the "American Anthropologist" Dr. A. V. Kidder, chairman of the Committee on State Archaeological Surveys of the Division of Anthropology and Psychology of the National Research Council has published summaries of the archaeological activities for 1924 of such states as have reported to the Committee. Some extracts from these

are printed for the information of members of the Wisconsin Archeological Society.

In Alabama explorations have been conducted by the Bureau of American Ethnology in the Muscle Shoals Project above Wilson Dam. In the trenching of a large periwinkle shell mound on Town Creek numbers of flaking tools and bone and shell picks for removing the food from boiled crustaceans were found. Some copper objects were found in another mound. The Alabama Anthropological Society conducted investigations at the old Alabama town of Taskigi at old Fort Toulouse. Here were found urns containing burials of adults, adolescents and infants. With these were other burials, both flexed and lengthwise placements. The full length interments were accompanied by ear plugs and bear tooth ornaments, the flexed by vessels containing mortuary tributes. The latter two customs are suggestive of Creek influence. The urn burials are Choctaw in character.

The Society has placed markers on three aboriginal sites. It plans to preserve in small parks all of the mound sites in the state.

In California an archeological survey of the southern San Joaquin Valley was completed by the University of California.

Colorado has continued the survey begun in 1923 with a view to publishing an archaeological map of the state. Some new material was found in researches conducted in pit-houses. In both years the surveys were carried over the state boundary into extensions of the Colorado culture areas into New Mexico and Utah.

The Division of Geology of the State Department of Conservation has located archeological sites in four counties in Indiana from which collections have been made.

In Iowa about half the season's work on the preliminary archaeological survey conducted by the State Historical Society of Iowa was devoted to work on a bibliography and summary of the extant literature. About seven weeks were devoted by Mr. Charles R. Keyes to traveling from county to county in southern Iowa visiting sites and collections.

In Michigan a survey was made of the Lower Peninsula by Dr. W. B. Hinsdale and his assistant, Mr. Frank Vreeland, traveling by automobile and during which several hundred sites, —mounds, inclosures, villages, cemeteries, etc., were located. A

preliminary report on Michigan archeology is in preparation. (This has now appeared, 1925).

In Ohio the Ohio State Archaeological and Historical Society spent the entire season in excavating the great Hopewell Group, in Ross County. Here many fine objects were brought to light such as large amber pendants, a double burial with copper nose pieces, a burial with a "butterfly" headdress trimmed with cut mica and pearls. One large pearl necklace contained 320 pearls in a fine state of preservation. Other notable finds were chisels and drills made of meteoric iron, a burial which contained 100 copper ear ornaments in pairs, placed in a double row around the body, a cache of 40 celts and a cache of 20 pipes.

In Oregon surveys and excavations have been conducted by the University of California. In Tennessee the State Archeological Society is making preparations to protect its antiquities by proper legislation. Mr. P. E. Cox, state archeologist, has made a preliminary survey of the camp and village sites, caverns and mounds along the Wolf and Obed rivers in Pickett County. Pictographs of men, animals and unknown objects were located and cave deposits showing evidence of cremation examined.

The report closes with an account of the archeological work accomplished in Wisconsin during 1924.

A BRONZE MIRROR FROM CARTHAGE

The tourist who may have visited old Carthage some years ago expecting to find imposing ruins of a great city was doubtless disappointed, for with the exception of a Roman Amphitheatre which had been excavated, there was nothing in the way of Triumphal Arches, Classic Temples or Noble palaces to be seen. Even the old Roman Amphitheatre revealed little besides foundation walls and broken columns, and a modern marble cross erected to the memory of two Christian Martyrs, Saint Perpetua and Saint Felicitas, who in the arena were torn to pieces by savage lions for the Pagan amusement of Septimus Severus 203 A. D.

From the Hill of Byrsa where the canny Queen Dido is said to have bargained for the site of her new city, one saw green pastures where the pensive goat wandered among some sunken walls, broken columns and here and there mosaic pavements half

hidden by the grass and bushes, and *this* was pointed out by the guide as the site of "Ancient Carthage!"

Twenty centuries have followed the destruction of the Punic City and the accumulated dust of years has covered with a mantle to a depth of from 20 to 60 feet whatever of architectural splendor may have escaped the burning of Carthage and the vindictive curse of Cato.

One hundred years ago the site of this ancient City was unknown, and even now it is uncertain where the foundations of Carthage of the Phoenicians may be found. Recent pictures taken from an aeroplane over the harbour reveal massive walls and stone work buried under the water, for the sea has risen nine and one-half feet since Roman days and other topographical changes have taken place. Great alluvial deposits cover some portions of the land and hide the ruins of the old Punic City. Much excavating, however, has been done during the past twenty years by the Rev. Pere Delattre and The White Fathers, those patient toilers "in the dust of Ages" to restore the fame of Carthage founded in the ninth century B. C. and now with the eminent services of Count de Prorok, three great Basilicas may be seen, while twelve others have been located. The site of an old villa with noble columns, and a grand mosaic pavement have been excavated, and hundreds of tombs opened producing many treasurers.

The three cemeteries of Douimes, St. Louis and Bord-el-Djedid have yielded Punic, Roman and Byzantine relics, and objects from Etruria, Greece and Egypt, suggesting the Phoenician intercourse with other nations.

In the little museums at Carthage will be seen some marble sarcophagi, stone inscriptions, fragments of architecture, terra cotta statues, figures and masks. Many specimens of pottery amphorae cups, dishes, pitchers and infant milk bottles. Bronze mirrors and decorated razors, bronze hatchets, chisels, nails and coffin handles, and surgical instruments. Articles of toilet showing that Carthaginean women were much like those of the present age,—jewelry in the way of rings, necklaces, bracelets and pendants, ivory hair pins, nail scissors, rouge jars, perfume bottles and eye-brow sticks. In addition to all this, many coins were found and numerous skeletons and four remarkable anthropoid sarcophagi discovered in the Necropolis of Bordel-Djedid may now be seen in the museum.

One of a Carthaginian priestess with her portrait statue in marble sculptured in the lid of her coffin. A remarkably handsome dignified woman arrayed in the costume of the Egyptian goddess Isis. The marble drapery was tinted in colors as was the custom with many Greek works of art. Another sarcophagus contained the portrait statue of a priest sculptured on the lid, an imposing figure in a toga like robe which had been colored with the purple dye of the Phoenicians. In one ear there was a gold ring, and on his right hand he held the vase of offering.

A third coffin had on the lid the sculptured portrait of a Carthaginian matron—a lady of fine Phoenician type, young and most attractive looking, draped in a plaited tunic and a veil which covered her head and fell in graceful folds to her feet. She wore no jewelry, rings or bracelets and this charming portrait statue of her was doubtless the work of some Greek artist.

Although in their coffins there was little besides their skeleton remains, yet from their portrait statues on the lids of the sarcophagi one could form a good idea of what the higher class of Carthaginians looked like who lived two thousand years ago.

The theology of the Carthaginians was of the pagan kind, but lacked the poetic imagery of the Greeks. The principal deities of their pantheon were a goddess in the dual characters of Astorte and Tanith, the former with the crescent moon as a symbol and the latter the full moon.

The crescent shaped roll familiar to the French breakfast table was the *form* in which the cakes were baked as an offering to Astorte, Queen of Heaven. She of the crescent moon shaped symbol, a survival of a pagan rite handed down to us. (M. Moore "Carthage of the Phoenicians.")

Besides these two, there was the terrible god Baal Moloch, who demanded ghastly sacrifices of his worshippers. He had a temple, the site of which has only recently been discovered and there are hopes of finding in its ruins his brazen idol. In times of danger, his good will was solicited by horrible sacrifices, when hundreds of little children perished, being thrown into the idol's arms by their mothers who saw them dropped in a red hot brazier and consumed!

Such was the Carthaginian civilization, a combination of refinement and cruelty, a civilization which had a tragic end. Among the objects in the museum are a number of bronze mir-

rors in whose polished faces may have been reflected the life and actions of a perished race, and one of these bronze mirrors obtained by the writer when at the museum at Carthage was analyzed with the following results:

Copper -----	82.00%
Tin -----	14.36%
Iron -----	.63%
	96.99%

The mirror was $3\frac{3}{4}$ in. diameter, with no handle differing in this respect from the Roman mirrors found at Carthage. Its age was uncertain, but as it was greatly corroded, covered with an oxidation and very brittle, suggests it might have come from some old Punic tomb in the Necropolis of St. Louis, dating from about the 5th Century B. C. The amount of tin present proved it to be undoubted bronze. The metals were obtained by the Phoenicians in their voyages to mines in Wales.

GEO. BRINTON PHILLIPS.

SILVER ANNIVERSARY

The Wisconsin Archeological Society will celebrate its twenty-fifth anniversary at a meeting to be held in the lecture hall of the Milwaukee Public Museum on Monday evening, March 15, 1926. Dr. Edward Sapir of the Department of Anthropology, University of Chicago, will deliver an address on "The Anthropological Viewpoint." Mr. George A. West will speak on the "Early History of the Wisconsin Archeological Society." His address will be illustrated with stereoptican slides. The "Lapham Research Award" will be made to several members of the Society.

ARCHEOLOGICAL NOTES

MEETINGS

A joint state meeting of the Wisconsin Archeological Society, the Wisconsin Museums Conference, the State Historical Society, the Brown County Historical Society and the Winnebago County Archeological and Historical Society was held at Green Bay, on Thursday and Friday, October 22 and 23. At the morning meeting, held at the Woman's club house, talks on museum subjects were given by Mr. Arthur C. Neville, president of the Conference; Mr. Nile J. Behncke, Oshkosh; Miss Katherine Byram, Green Bay; Mr. Charles E. Brown, Madison, and Mr. Huron H. Smith, Milwaukee. Miss Deborah B. Martin, Green Bay, lead a round table discussion on the "Aims and Needs of Public Museums".

The afternoon meeting was held on the grounds of the State Reformatory, on the bank of the Fox River. Mrs. Margaret Hutton Abels of the State Board of Control, Madison, presided over this outdoor meeting at which stone markers erected on the sites of Camp Smith, of the first court house in the Northwest Territory, and of the early residence of Governor James Duane Doty, the first brick house to be erected in the state, were unveiled. Among the speakers were E. H. Eklund, superintendent of the Reformatory; J. H. Taylor, Dr. Joseph Schafer, Dr. Louise P. Kellogg and Huron H. Smith. During the program musical numbers were furnished by the fine Reformatory band directed by Prof. A. Enna. The grounds were especially decorated for the occasion and a speakers' and a band stand erected. About five hundred persons, many of them school children and teachers, were present during this meeting. A reception was afterward tendered the members of the visiting societies at the historic Morgan L. Martin home.

At the evening dinner, held at Hotel Northland, Governor J. J. Blaine delivered an address in which he highly praised the work of the several societies participating in the meeting. The Reformatory orchestra furnished instrumental and vocal numbers during the dinner. The societies afterwards adjourned to the Woman's club house where Dr. S. A. Barrett delivered an illustrated lecture on " Aztalan."

Dr. Kellogg, Mr. H. H. Smith and Dr. Barrett were the speakers at the meeting held at the club house on Friday morning. The meeting closed with a round table discussion on Wisconsin archeology, ethnology and history. The thanks of the societies are due Mr. and Mrs. Arthur C. Neville, Miss Deborah B. Martin, Mr. and Mrs. E. T. Blesch, Mrs. Margaret Hutton Abels, Mr. E. H. Eklund and others who helped to make the Green Bay meeting such a great success.

The Wisconsin Archeological Society held a meeting at the Milwaukee Public Museum, on Monday evening, November 16. President E. J. W. Notz conducted the meeting. There were fifty members and some visitors present.

Secretary C. E. Brown announced the death on August 17, in an automobile accident, near Tokio, North Dakota, of Mr. Alanson Skinner, a former president of the Society. Dr. S. A. Barrett introduced the following Resolution, which was unanimously adopted.

"WHEREAS, The tragic death of Mr. Alanson B. Skinner has cast a shadow over the membership of the Wisconsin Archeological Society, the more so because of his intimate association with the Society as one of its former active members and presidents, and

"WHEREAS, We deeply feel the loss which anthropology at large, and especially the problems of Wisconsin, have sustained through this tragedy,

"Be It Therefore Resolved, That the Wisconsin Archeological Society deeply mourns his loss and most profoundly sympathizes with his bereaved relatives and also with the Museum of the American Indian, Heye Foundation, in the loss of so valuable a member of its staff, and

"Be It Further Resolved, That a copy of this resolution be spread upon the minutes of this meeting and that copies of it be sent to Mrs. Alanson B. Skinner, Mr. and Mrs. Frank W. Skinner and to the Museum of the American Indian, Heye Foundation, and further, that it be published in the Society's official organ."

Mr. H. E. Cole, president of the State Historical Society, gave a very interesting illustrated lecture on "Travel Trails and Tavern Tales", in which the early Indian trails, roads, stage coaches and taverns of the state were most delightfully described and pictured.

At the close of the meeting interesting exhibits of archeological specimens from Wisconsin and other states were exhibited by the Messrs. G. A. West, August P. Cloos, Vetal Winn and C. G. Schoewe.

At the meeting of the Executive Board Mr. Henry O. Stenzel, Milwaukee, was elected a member of the Society. Secretary Brown reported on the field and other work carried on by the Society during the summer months.

A meeting of the Wisconsin Archeological Society was held at the Milwaukee Public Museum on Monday evening, December 21, President Notz presiding. Forty-six members and guests were present.

Secretary Brown announced the election to membership by the Directors of Mr. Fred Leyboldt, Milwaukee, and Mr. Carl H. Richter, Oconto. A committee, consisting of the Messrs. Dr. S. A. Barrett, G. A. West, C. G. Schoewe and R. L. Maas, had been appointed by the President to make arrangements for a proper celebration of the 25th anniversary of the organization of the Society.

Mr. W. C. English of Wyocena favored the Society with a lecture on "Wisconsin Caves" which he illustrated with a fine series of lantern slides and with specimens of stalactites and stalagmites obtained from some of these. As some of these caves had been used by early Indians as dwelling and burial places and others had Indian pictographs on their walls this lecture proved very interesting to the members present. The lecturer made a strong plea for the protection of the caves and against the vandalism which had already ruined the geological beauties of some of them.

A motion made by Mr. Schoewe that the Society strongly urge the preservation of these geological wonders of Wisconsin, was unanimously adopted. In the general discussion of state caves which followed the lecture, Mr. W. W. Gilman and other members took part.

At the close of the meeting exhibits were made by Mr. Schoewe, Mr. Brown and other members.

At the meeting of the Wisconsin Archeological Society held in the trustee hall of the Milwaukee museum on January 18, Mr. Robert E. Corwin, supervisor of museum extension, entertained the sixty members and visitors in attendance with a fine illustrated lecture on "The Historic Shenandoah Valley". President Notz presided.

Secretary Brown announced the election of Mr. William Horlick, Jr. of Racine as a life member, and the election of the Messrs. A. N. Becker, Kermit Freckman, Clement B. Budinger and Alton K. Fisher, all residents of Milwaukee, as annual members. He stated that the Board of Directors favored the marking with tablets of the sites of the several early Milwaukee Indian villages. The interest of several local organizations was to be enlisted in accomplishing this. It has been decided to place a metal tablet on the site of Aztalan Mound Park.

Mr. Huron H. Smith read a report on the outstanding archeological and ethnological achievements of the year as listed in a recent issue of "Science". Some of the members felt that this report omitted certain explorations whose results were of equal or greater importance than some of those mentioned by this magazine.

RESEARCHES AND MUSEUMS

A course in museum work and field work in archeology is to be given at Beloit College this summer under the direction of Dr. George L. Collie, director of its department of anthropology. The intention is to train students in the best methods of museum work and in archeological research and exploration. Nine weeks will be devoted to study and travel. Twelve museums in England, France, Switzerland and other countries will be visited. Field work will be conducted in France.

Announcement has been made of the gift of \$50,000 to the city of Green Bay by Mr. and Mrs. Grant Mason of New York for the erection of a building to properly house the growing collections of the Green Bay Public Museum. The museum is to be named the "Neville Public Museum" in recognition of the services of Mr. Arthur C. Neville, its director. Members of the Wisconsin Archeological Society offer their congratulations to Mr. Neville, who has been one of its members for many years. He was re-elected president of the Wisconsin Museums Conference at the recent meeting held at Green Bay.

The Museum of the American Indian, Heye Foundation, has published in "Indian Notes (October 1925) a short account of the life and work in the field of American anthropology of Alanson B. Skinner, who was killed in an automobile accident near Tokio, North Dakota, on August 17, 1925. A bibliography accompanying this article lists Mr. Skinner's published contributions to American anthropology during the years 1903 to 1925.

The Chicago and other newspapers have recently carried many accounts of the archeological explorations in Algeria of the Logan-Sahara expeditions of Beloit College, lead by Mr. Alonzo W. Pond. The expedition has been very successful in unearthing traces of palaeolithic man in the desert wastes. Mr. Pond is to return to Europe and engage in researches in Poland and France.

Mr. Albert M. Fuller, assistant curator of the department of botany of the Milwaukee Public Museum, requests the assistance of members of the Wisconsin Archeological Society in procuring information of the uses made by early settlers of the state of the well known introduced plants known as Apple of Peru, barberry, barnyard grass, bitter-sweet, bouncing bet or soapwort, buffalo bur, bull thistle, burdock, campion, Canada thistle, caraway, carpet weed, catchfly, catnip, cheeses or common mallow, chicory, corn cockle, cypress spurge, dandelion, dock or yellow dock, dodder, elecampane, goat's beard, Jimson weed, lady's thumb, lambs quarters, May-weed, motherwort, mustard, mullein, orange hawkweed, ox-eye daisy, pigweed or red-root, quack grass, self-heal or heal all, sweet clover, sheep sorrel, shepherd's purse, snapdragon or butter and eggs, sow thistle, tansy, velvet leaf, white alyssum and wild oat. It is important for Mr. Fuller's purposes that the exact dates of the introduction of these plants into different sections of the state be ascertained. It is hoped that all members will endeavor to aid him in this undertaking. When sufficient data is obtained a monograph on the subject will be published.

The assistance of all members and friends of the Wisconsin Archeological Society is asked in aiding in the work of exploration in the

state during the coming spring and summer months. There is a large amount of work to be done in nearly every county in the state. Members who have not already undertaken or been assigned to research work in any county or district are requested to communicate with Secretary Charles E. Brown at Madison. Full instructions for field work will be forwarded to them. The amount of money available for field work will this year be small so that the Society will find it necessary to depend upon the interest and generosity of its members more than ever in pushing this very necessary and important work in Wisconsin.

Members are requested to bear in mind the fact that the Society is making a special effort this year to encourage the preservation and marking of additional groups of Indian earthworks and sites, to locate the courses of trails not yet located, to explore caves and rock shelters, to recover the Indian names of many of our smaller lakes, to collect and record native legends, myths and tales, to inspire the organization of museums and public collections in every city in the state and to make a careful study of collections from the Indian workshop, camp and village sites in their home neighborhoods.

In every part of Wisconsin the interest especially of intelligent young men and women should be secured in becoming members and aiding the state society in its work for the public. The establishment of inviting courses in anthropology and museology at the University of Chicago and at Beloit College will now enable students to fit themselves for future work in these very desirable fields.

PUBLICATIONS

A report on "Primitive Man in Michigan", author Dr. W. B. Hinsdale, custodian of Michigan archeology at the University of Michigan, has been published by the University Museum. "The motive in preparing an introduction to Michigan archeology is to bring to public attention, as forcefully as possible, the fact that the state had, and now has, some rather distinctive antiquities. In the interest of education and science these deserve to be studied, preserved as far as possible and classified. Especially interesting chapters in this much appreciated monograph are devoted to a consideration of "Geographical and Other Peculiarities of Michigan", "The Value of Indian Relics", "Earthworks", "Trails and Sites" and "Classification of Artifacts". Forty-two excellent plates illustrate this publication.

The "Green Bay Historical Bulletin", published by the Green Bay Historical Society, made its appearance in April 1925. "Its object is to disseminate a knowledge of the history of Green Bay, De Pere and the surrounding country. The first issue contains a very interesting and well illustrated article on "La Baye", by Arthur C. Neville. The June issue is devoted to an article entitled "An Episode of the War of 1812". This magazine deserves encouragement. The subscription price is \$1.00 per year. Subscriptions may be addressed to Mr. Neville at Green Bay.

The October-December, 1925, issue of the "American Journal of Archeology", published by the Archeological Institute of America, at Concord, N. H., contains a number of interesting articles, among these "The Eagle and Basket on the Chalice of Antioch", by Wm. Romaine Newbold; "Excavations at Corinth in 1925", by Theodore L. Shear; "The 'Dragon-Houses' of Southern Euboea", by Franklin P. Johnson, and "Excavations at the Argive Heraeum, 1925", by Carl W. Blegen.

After a brief interruption the regular publication of "The Wisconsin Magazine" has again resumed at Madison by its editor, Mr. Hardy

Steeholm. The November, 1925, issue contains a very interesting article "The Better Cities Contest", from an address delivered by Hon. M. B. Rosenberry at the Better Cities Contest Convention held at Stevens Point. The Wisconsin Magazine should receive the hearty support of members of the Wisconsin Archeological Society in its work.

The State Historical Society has recently published "The French Regime in Wisconsin and the Northwest", by Louise Phelps Kellogg, research associate on the society's staff. This volume every member of the Wisconsin Archeological Society should read. It is considered by historians to be Miss Kellogg's most valuable contribution to the history of our state and of the old Northwest. It represents the results of many years of painstaking research and study of one of Wisconsin's most distinguished women, who, for her scholarly achievements in the field of American history deserves to be numbered among the leading historians of our country. No one knows the French and Indian history of the St. Lawrence Valley and Great Lakes as Miss Kellogg does or has ever written of it more interestingly or more authoritatively. Chapters in her present book bear the titles: "The North American Continent", "The Great Rivers", "Conjectures Concerning the Great Lakes", "Discovery of the Great Lakes", "The Voyage of Jean Nicolet", "Tribal Wars and Dispersion", "The First Traders", "The Missions", "Exploration of the Mississippi Valley", "Iroquois War and the West", "The West Evacuated", "The First Fox War", "The Reoccupation of the Posts", "The Second Fox War", "Early Mining in the Northwest", "Changes in Fur Trade Methods", "French Residents of Wisconsin", "Intercolonial Rivalry for the Western Trade", and "The End of the French Regime in the Northwest." Miss Kellogg has dedicated her work to the memory of Reuben Gold Thwaites, former secretary of the State Historical Society.

In the September, 1925, issue of "The Wisconsin History Magazine" Mr. H. E. Cole has written the interesting story of "The Old Military Road" leading from the early frontier fort at Green Bay to that at Prairie du Chien. This and the road from Green Bay to Chicago were surveyed and located in 1831 and 1832. In closing his article the writer says: "Should a resurrection trumpeter blow his bugle along this road, what an assemblage would answer his call! In review would come venturesome explorers in quest of lands heretofore unseen; daring hunters whose ambitions were to be realized in an abundance of bear, bison, beaver and other game; determined pioneers with mighty axes to hew out homes in the solitary woodlands; officers and soldiers standing guard over the Indian as he looks with suspicious eye upon the encroaching whites; anxious traders with beads and baubles to barter with unsophisticated tribesmen; travelers from many lands seeking adventure on the advancing rim of civilization—Indians, explorers, hunters, pioneers, troopers, traders and taverners tramped over this road by day and camped beneath the stars by night."

MISCELLANEOUS

The value of property owned by the American Indians was considerably increased during the fiscal year 1925, according to an estimate completed by the Bureau of Indian Affairs of the Interior Department. The total value of Indian property is now fixed at \$1,656,046,550, including property held by Indian tribes and by individual Indians under the guardianship of the Government.

The increase is attributed to the enhanced value of oil and gas, coal, lead, zinc, asphalt and other mineral deposits on tribal lands. The

value of these mineral resources, as estimated by Indian superintendents and the Geological Survey, amounts to \$933,947,224.

Mr. H. E. Cole of Baraboo, a member of the Wisconsin Archeological Society, is collecting information concerning the early taverns of Wisconsin with a view to publishing a book on this subject. His personal researches in quest of information on this subject and of photographs of the old taverns still standing in the state have this year carried him into many counties. Members of the Society are requested to kindly communicate to Mr. Cole any information on this subject which they or others may possess. Copies of all of the data and pictures obtained by him are to be filed in the archives of the State Historical Society.

The Central Section of the American Anthropological Association will hold its this year's meeting at Columbus, Ohio, at an April date yet to be determined upon. After the meeting visits will be made to Fort Ancient and the Great Serpent mound. Persons desiring to become members of the Section are requested to correspond with Mr. George R. Fox, Secretary-Treasurer, Three Oaks, Michigan.

The Wisconsin Archeologist

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April 1926,
NEW SERIES

No. 2

Lapham Research Medal



PUBLISHED QUARTERLY BY THE
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MILWAUKEE

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Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.

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MILWAUKEE COUNTY PARKS—G. A. West, Dr. S. A. Barrett, H. H. Smith, Mrs. Theodore Koerner and C. G. Schoewe.

These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$.50

Institutional Members, \$1.50

All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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The Lapham Medal

The Wisconsin Archeologist

Published Quarterly by the Wisconsin Archeological Society

Vol. 5

MADISON, WIS., APRIL, 1926
New Series

No. 2

THE SILVER ANNIVERSARY CELEBRATION

The Wisconsin Archeological Society celebrated its Silver Anniversary at a meeting held in the lecture hall of the Milwaukee Public Museum on Monday evening, March 15. There were about two hundred members and guests present. President Dr. E. J. W. Notz in a few well-chosen words called attention to the great interest of this gathering of Wisconsin archeologists met for the purpose of appropriately celebrating the birthday of the state society. Secretary Charles E. Brown announced that letters and telegrams of congratulation had been received by the Society from the Wisconsin Academy of Sciences, Arts and Letters, the State Historical Society, Central Section, American Anthropological Society; Michigan Archeological Society; Lewis H. Morgan Chapter, New York State Archeological Association, Anthropological Society of St. Louis, Ohio State Archaeological and Historical Society, Archaeological Institute of America, Tennessee Archaeological Society and Winnebago County Archaeological and Historical Society.

Dr. S. A. Barrett introduced Dr. Edward Sapir, the noted anthropologist, now a member of the Department of Anthropology of the University of Chicago, who delivered a very interesting lecture on "The Anthropological Viewpoint".

Mr. George A. West, vice-president of the Society, followed with an address on "The History of the Wisconsin Archeological Society", which he illustrated with a large number of stereopticon slides illustrating the activities of its members during the past twenty-five years. The efforts of both speakers to add to the interest of a notable meeting were enthusiastically applauded by the audience.

Dr. S. A. Barrett, chairman of the special Silver Anniversary Committee, gave a talk on the history and significance of the

Lapham Medal, a picture of which was thrown upon a large screen hanging in the rear of the stage of the lecture hall. The medal presentation address was given by Vice-President Winfield W. Gilman. At its conclusion he called to the platform the men whom the Society had selected to be honored on this occasion with awards of the Lapham Medal. In presenting the medal to the Messrs. George A. West, Dr. Samuel A. Barrett, Charles E. Brown, Dr. George L. Collie, Halvor L. Skavlem, H. E. Cole and John P. Schumacher he briefly recounted the distinguished services performed by each during years of unselfish service in the local field of archaeological and ethnological research. Dr. Alphonse Gerend, George R. Fox and Dr. W. G. McLachlan, who were also so honored, were unable to be present at the anniversary meeting.

Secretary Brown reported that the Executive Board had, as an appropriate remembrance of the Silver Anniversary meeting, elected as honorary members of the Wisconsin Archeological Society a number of distinguished American anthropologists, historians and educators. These were Dr. J. Walter Fewkes, Bureau of American Ethnology; Dr. A. V. Kidder, American Anthropological Association; Dr. Fay Cooper Cole and Dr. Edward Sapir, University of Chicago, Dr. Bertold Laufer and Dr. Ralph Linton, Field Museum of Natural History; Mr. George C. Heye and Dr. F. W. Hodge, Museum of the American Indian; Rev. Dr. A. C. Fox, Marquette University; Dr. Clark Wissler, American Museum of Natural History; Dr. W. C. Mills and H. C. Shetrone, Ohio State Archeological and Historical Society; Dr. Glenn Frank and Prof. Carl R. Fish, University of Wisconsin, Dr. Joseph Schafer, Wisconsin Historical Society; Dr. A. L. Kroeber, University of California; Dr. W. B. Hinsdale, University of Michigan; and Mr. P. E. Cox, Tennessee Archeological Society. Miss Deborah B. Martin of the Kellogg Library, Green Bay, was also elected an honorary member.

Among the considerable number of state members of the Wisconsin Archeological Society who attended the Silver Anniversary Meeting were C. H. Richter, Oconto; J. P. Schumacher, Green Bay; R. N. Buckstaff, Oshkosh; George Overton, Butte des Morts; T. L. Miller, Fairwater; Ray Van Handel, Sheboygan; J. H. Martin, Racine; C. W. Beemer, Kenosha; Dr. G. L. Collie and Mr. and Mrs. W. F. Bauchle, Beloit; H. L. Skav-

lem, Janesville; A. O. Barton, Madison; Rev. W. C. Stumpf and Geo. Richardson, Wauwatosa and H. E. Cole, Baraboo. Mr. Charles Lapham, a son of Dr. Lapham, and his daughter, Miss Laura Lapham Lindow, were among the prominent guests present at the meeting.

The stage of the large museum lecture hall was appropriately decorated for the occasion, a large bunch of American Beauty roses on the president's table was the gift of Mr. August P. Cloos, a devoted member of the Society. The committee of arrangements for the Silver Anniversary celebration consisted of Dr. S. A. Barrett, Mr. George A. West, Mr. Charles G. Schoewe, Mr. Milo C. Richter and Mr. Raymond L. Maas, who are to be congratulated on its success.

A number of the state members of the Society, who remained in Milwaukee on the day following the meeting, assembled in the morning in the office of Mr. Huron H. Smith in the Milwaukee Public Museum. Here Mr. H. L. Skavlem, the veteran Wisconsin archeologist, gave a talk on and demonstration of Indian flint working.

CHARLES E. BROWN.

THE LAPHAM RESEARCH MEDAL.

At its Silver Anniversary meeting, held on March 15, 1926, at Milwaukee, the Wisconsin Archeological Society awarded for the first time the Lapham Research Medal. Almost at the inception of the Society the establishment of a medal was suggested. The accomplishment of this, however, is very largely due to the efforts of Dr. E. J. W. Notz, now president of the Society.

For the design of the medal the Society is indebted to Mr. Raymond L. Maas, a Milwaukee artist, and for its excellent execution, to Mr. L. W. Bunde, both of whom are active members of the Society.

The obverse of this medal bears a relief profile of Dr. Increase Allen Lapham, Wisconsin's first noted archeologist, whose interest in Wisconsin's antiquities covered the period from 1836 to 1875, the year of his death. Around the relief is the inscription, "Lapham Medal, Wisconsin Archeological Society," surrounded by a representation of a string of wampum.

The reverse of the medal bears two symbolic figures. Above is a representation of the thunder bird, so characteristic of the Indian lore of the Great Lakes region and so frequently found in Wisconsin as a huge effigy mound. This figure typifies the upper world spirits, the effigy mounds, in which the state is so rich, and is a most fitting symbol of the archeological activities of the Society. At the bottom is a double panther motif, characteristic of the woven buffalo hair bag of the region. This typifies the under world deities, and fittingly symbolizes the State's ethnology. Between these two symbolic figures and within another encircling string of wampum is the inscription, "Awarded to — for distinguished service in anthropological research."

Perhaps the most symbolic feature of all, is the metal, copper, in which the medal is struck. In aboriginal times the continent's great source of copper was the primitive, open pit mines of northern Wisconsin, the Michigan peninsula and Isle Royale. Further, the State of Wisconsin is noted for the great number of copper implements and ornaments found in its archeological remains. What could be more fitting, therefore, than that this medal should be struck in copper.

The medal was awarded upon this occasion to the following members of the Wisconsin Archeological Society, each of whom has done signal service in the survey, preservation and study of Wisconsin's antiquities, and in the State's ethnology: Messrs. George A. West, Charles E. Brown, George L. Collie, S. A. Barrett, H. E. Cole, John P. Schumacher, George R. Fox, Alphonse Gerend, W. G. McLachlan and Halvor L. Skavlem.

The awarding of this medal ended a most interesting Silver Anniversary program, in which Dr. Edward Sapir, Associate Professor of Anthropology of the University of Chicago, spoke on "The Anthropological Viewpoint," and Mr. George A. West, a past president and one of the original founders of the Society, delivered an illustrated address on "The History of the Wisconsin Archeological Society."

While the Lapham medal was awarded upon this occasion only to those whose service had been primarily in the Wisconsin field, it is probable that the scope of the award will be widened in the future and that workers outside the State will receive this award.

S. A. BARRETT.

THE WATERTOWN VILLAGE SITE.

On the west bank of Rock River, within the city of Watertown, on the ground now owned by the Bethesda Lutheran Home, is the site of an ancient Winnebago village, about ten acres in extent.

That this village was not of minor importance before the coming of the white settlers, and even after their arrival here can be deduced from the many and widely varied remains picked up from time to time and from authentic statements made by early settlers.

The site appears to us at once as an ideal place for an Indian settlement.

An abundant supply of water was always to be had from three crystal pure springs which bubbled from the base of the elevated ground whereon this village stood.

Another inducement to locate here is found in the fact that Rock River in early days teemed with fish, and other forms of useful aquatic life. The pickerel, the bass, the sucker and the drumfish (*Pogonias cromis*) in particular seem to have been highly prized. Hundreds of the disk-shaped ear-bones of this aquatic animal have been found on the Watertown village site.

Again even nature lent itself to the welfare of the Indians.

The rich semi-sandy soil was unequaled for the planting of maize and other plant foods cultivated by the redmen.

The elevation and rapid drainage protected him from the dampness of the nearby low-land.

Bounteous nature gave the forest with its wild animal life and its trees so indispensable to the early Indian. In former times hunting in this region was excellent. Captain James Rogan, an early settler, states that droves of deer to the number of a hundred could be seen together, at times, sporting in the forest and on the open green which then covered the land whereon the city of Watertown now stands.

Clay, for the making of pottery, was to be had in unlimited quantities from pits just across the river.

A careful surface survey of this site made by the writer and others has yielded a variety of interesting artifacts of both pre and post Columbia times. These offer a fertile field of speculation to the student of Indian history; little or nothing, how-

ever, can be definitely and authentically learned regarding this village prior to 1836, the date of the arrival of Mr. Timothy Johnston, the first white settler. Quoting the City Directory (1872): "Its earliest written history dates back only thirty or forty years, when the ground now occupied by the city of Watertown was the site of a somewhat prominent Indian village, the west side of the river being occupied by the Winnebagoes, and the east side by the Pottawattomies, Indians of two tribes who in the language of our informant, sustained themselves by hunting, fishing and a little agriculture. Scattered about here and there were several acres of cleared land, which were used as cornfields, and the old hills were plainly visible."

We know, however, that the gradual migration of the Winnebago Indians from their home on the shores of Lake Winnebago to points along Rock River and its tributaries began about the year 1732. It is plainly evident also, that little time could have elapsed from the beginning of this migration to the time of their arrival in this region. The forest was too inviting; the stream too well stocked; the hills and valleys too sheltering and the springs too clear to be passed by long unnoticed. Therefore, it is probably not erroneous to consider the earliest date of settlement about 1735.

Among the problems connected with Winnebago archeology, none is more difficult than affixing even approximately, the age of stone artifacts. It is supposed by some that the Winnebago reached this habitat some time before the discovery of America. Therefore, some of the archeological finds easily go back thus far. Since there is no way of determining the pre-Columbian period, the age of these finds is problematical.

It is well at this time to list, without discussion, all of the more important stone and copper remains found by the writer and others on the old Winnebago site at Watertown. None of the coppers are pre-Columbian:

Iron

1. Clasp of iron trade knife.
2. Iron point for domestic use.
3. Firing-pan from trade musket.
4. Iron arrow points.
5. "Utrecht" trade axe.

Copper

1. Numerous pieces from copper kettles.
2. Copper tubular arrow points.

3. Copper flat arrow points.
4. Copper beads and bangles.
5. Trigger of trade gun.
6. Decorations of trade gun.
7. Tine of trade spear.

Stone

1. Axes.
2. Celts.
3. Arrow points of various types.
4. Broken stone pipes of both Indian and white manufacture.
5. Stone drills.
6. Hammer stones.
7. Anvil stone.
8. Small lizard effigy.
9. Stone scrapers.
10. Bowl paint mixer.
11. Sandstone awl sharpener.
12. Trade rings.

Miscellaneous.

1. Lead balls for trade rifles.
2. German silver bangles.
3. Trade beads of glass.
4. Lead bead.
5. Pistol flints.
6. Serrated and pierced river shells.
7. Split deer bones.
8. Three bear claws.
9. Potsherds.
10. Broken pipe made of Green Bay clay.
11. Ear stones of drumfish (*Pogonias cromis*).

Pottery.

Of the above mentioned artifacts the potsherds probably are of greatest interest. In general all were undecorated; some few show cord markings. The majority, however, are smooth on the exterior. Some rim sherds found by the writer were made with that slight outward flare so characteristic of Winnebago pottery. These rim sherds were marked at regular intervals on the inner edge with a single straight indentation about one-eighth of an inch in length.

The material used in the making of these vessels, like that found on other neighboring sites, varied extremely both in color and composition.

The clay used in the manufacture of these pottery artifacts contributed largely to the varying shades of color; thus the

material used in one vessel is distinguished from that employed in the making of another. The colors, on the Watertown site, varied from a dull yellow to a slight reddish tinge; some sherds were of a grayish black tint.

The thickness of the sherds differed; a few, depending, probably, on the use of the vessels, were only one-eighth of an inch in thickness; others were found which were four-eighths of an inch thick.

The tempering of the vessels was done mostly with shells and bits of crushed sherds. Some differed from others in that they were tempered only with sand and as a result were more brittle than other vessels made of coarser materials.

Burials.

There are no mounds now standing in the immediate neighborhood of this settlement. Other less laborious methods for disposing of the dead were found in the numerous sand and gravel pits nearby. During the construction of the Milford-Watertown road (1905) these gravel pits were opened up and the contents removed. Numerous skeletons were encountered most of which were thoughtlessly destroyed by workmen or carried off by relic hunters. Most of the burials were unaccompanied by implements or ornaments. With two sheet copper bangles were found, but these, which were once owned by a local collector, have since been lost.

Inquiry reveals the fact that the majority of the burials were made in a sitting position. Others were interred at full length. Other graves were unearched in which only a few bones of the entire skeleton could be found. These latter, undoubtedly, were winter burials.

Maize and Other Plants.

Time and the plowman have removed all traces of the ancient planting grounds of the Watertown Winnebago. That these were quite extensive and that the local Winnebago must have been sedentary in their nature we may deduce from statements made by Timothy Johnston (1836): "Scattered about here and there are several acres of cleared land, which were used as cornfields by the Indians and the old hills were plainly visible."

Chiefs.

Little is known of the early chieftains of the Watertown Winnebago. The most noted of these was Iron Walker (Mau-ze-mon-eka) a son of the famous Whirling Thunder. Early accounts state that, "his band resided a mile or two above the present locality of Watertown". (7, W. H. C., 352; 12 do., 402)

Population.

The village of the Watertown band of Winnebago was not one of minor importance. In 1837 Captain James Rogan gives the village a population of 400 people. He states in part, "When I first came to Watertown there were over four hundred Winnebago Indians camped within half a mile from the place where I built my shack." This estimate would make the number of warriors about 100.

Stone and Copper Arrow Points.

In former times stone arrows were most prolifically strewn over both the village site and the adjacent region. The common types found here are three in number. Of course the well-known notched arrow point is most plentiful and oft-times most beautifully shaped. This type of arrow point varies greatly in size. In the writer's collection the smallest is one-half of an inch in length; the largest four inches.

The pointed oval is second in prominence. This type of point is found from two to three inches in length.

The third type of arrow point in order of abundance is the familiar triangular form. Although on the Watertown village site this arrow point averages only from one-half of an inch to an inch in length, it is in some respects more perfectly shaped than any of the others.

The stone arrow points found on the Watertown site are made chiefly of flint with an interspersing of quartz and other varieties of hard stone. The brown "maple sugar" quartzite arrows and other rare and odd-shaped points are occasionally found. Some stones used in arrow-making on this site are exotic.

The few copper points found on the site of this Indian settlement are all made of the well-known "contact material." None of the coppers found are made of native copper.

The flat sheet copper points are similar to those so abundantly found on New York village and camp sites. Likely, these entered the interior of Wisconsin and were distributed among the Wisconsin Indians, by some early and daring trader.

Round tabular points have also been found. These and the above mentioned flat arrows are quite rarely encountered, however. No more than six of each type have been found by the writer on this site.

Iron, Copper and Other Trade Artifacts.

These products of white manufacture, clearly point to the early presence of the Indian trader reported to have been so long established in the village of the Watertown Winnebago.

The City Directory (1872) mentions that: "The earliest authentic reports state that a Frenchman had established a trading post at the Rapids of Rock River, afterwards known as Johnston's Rapids. . . . There is a vague rumor that this French trader was murdered by the Indians in a fierce impulse of passion to revenge some fancied deed of iniquity, or to plunder his stock, and burnt his cabin to the ground . . . His last resting place was afterwards found ornamented with a wooden cross; who ornamented it, who the trader was, what his name, where he did come from, how long he had been here, what acts aroused the fatal resentment of his savage neighbors, are inquiries so deeply involved in mystery that they can never be answered."

Undoubtedly much of the early history of this once important although comparatively unknown village has been unrecorded some, indeed, awaits revelation .

ANTON SOHRWEIDE.

JOINT MEETING AT WHITEWATER

The annual Joint Meeting of the Wisconsin Archeological Society and the Wisconsin Academy of Sciences, Arts and Letters was held at the State Normal School at Whitewater, on Friday and Saturday, April 9 and 10. Of the thirty papers and illustrated lectures included in the two day program fifteen were presented by members of the Wisconsin Archeological Society. Dr. George L. Collie exhibited and described the two very valuable Cro-Magnon necklaces (Aurignacian and Magdalenian)

now the property of the Logan Museum of Beloit College. Dr. S. A. Barrett gave an illustrated lecture on "Ancient Aztalan", detailing the results of the recent exploration of the site of that old stockade-protected Indian village and its surrounding sites, mounds and burial places. This lecture was supplemented by Mr. Charles E. Brown with a discussion of the collection of nearly four thousand specimens of stone, clay and metal implements, ornaments and utensils collected by Hubert M. Jaycox from this site in the years 1881 to 1898 and now deposited by him in the State Normal School. Mr. W. C. English delivered a very interesting address on "The Preservation of Historic and Scenic Landmarks."

A paper prepared by Mr. Anton Sohrweide describing an Indian village site located on the grounds of the Bethesda Lutheran Home, on the west bank of the Rock River, at Watertown, was also presented by Mr. Brown. Mrs. May L. Bauchle gave an interesting description of "The Shopiere Shrine", and Mr. Albert O. Barton told of the life history of an Indian arrowpoint. Other speakers who added very greatly to the interest of an exceptionally good program were Huron H. Smith, H. E. Cole and Mrs. Angie Kumlien Main.

The annual dinner of the two state societies was held on Friday evening at the State Normal School dining hall. At this dinner Dr. Edward A. Birge delivered an interesting address in which he reviewed the early history of the Academy and of the contributions to science made by Lapham, Chamberlain, Hoy, Irving and others of its early distinguished members. This was followed by an informal discussion by those present of the best methods to be employed in extending the public interest in the work of the Academy and the success of its annual joint meeting with the Wisconsin Archeological Society.

At the close of the afternoon meeting Dr. Barrett delivered in the large lecture hall of the school his fine lecture on "The Yellowstone National Park," which he illustrated with a large number of lantern slides and moving pictures. Many students, members of the school faculty and citizens also attended this lecture.

This year's Joint Meeting program was one of the best which the societies have presented in recent years. Among other members of the societies who were present or participated in the program were G. A. West, Will F. Bauchle, R. S. Coe, S. C.

Wadmond, Mrs. S. A. Barrett, Dr. J. J. Davis, R. H. Denniston, E. M. Gilbert, W. S. Marshall, C. E. Allen, Hugo Alder, W. D. Frost, B. B. James, O. J. Lee, Storrs B. Barrett, A. A. Granovsky, C. Juday, L. J. Cole, Rev. N. E. Hansen, W. F. Dove and F. V. Owen.

COMPARISON BETWEEN AN AURIGNACIAN AND A MAGDALENIAN NECKLACE FROM THE DOR- DOGNE DISTRICT OF FRANCE.

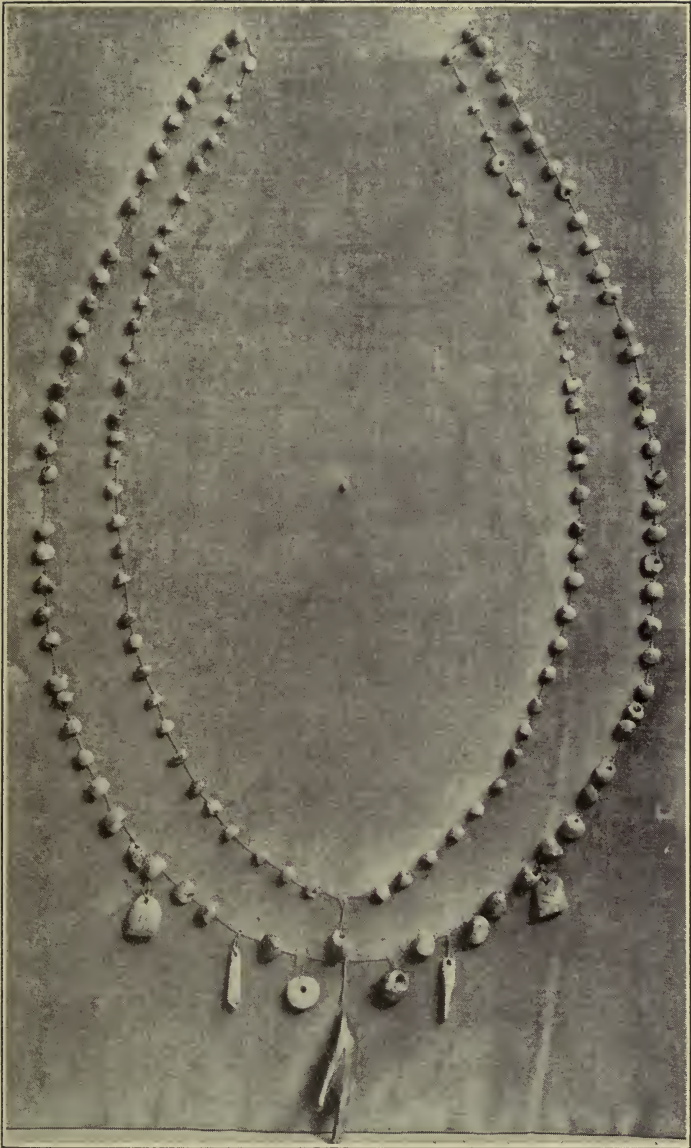
The two necklaces to be described are in the keeping of the Logan Museum of Beloit College, Beloit, Wisconsin.

The Aurignacian necklace was purchased from Louis Didon of Perigueux, France. The beads and pendants constituting the necklace were found by Didon in the rock shelter of La Blanchard in 1911; he published an account of his findings in a local scientific journal of limited circulation, and the importance of his discovery has never been fully appreciated, at least in this country.

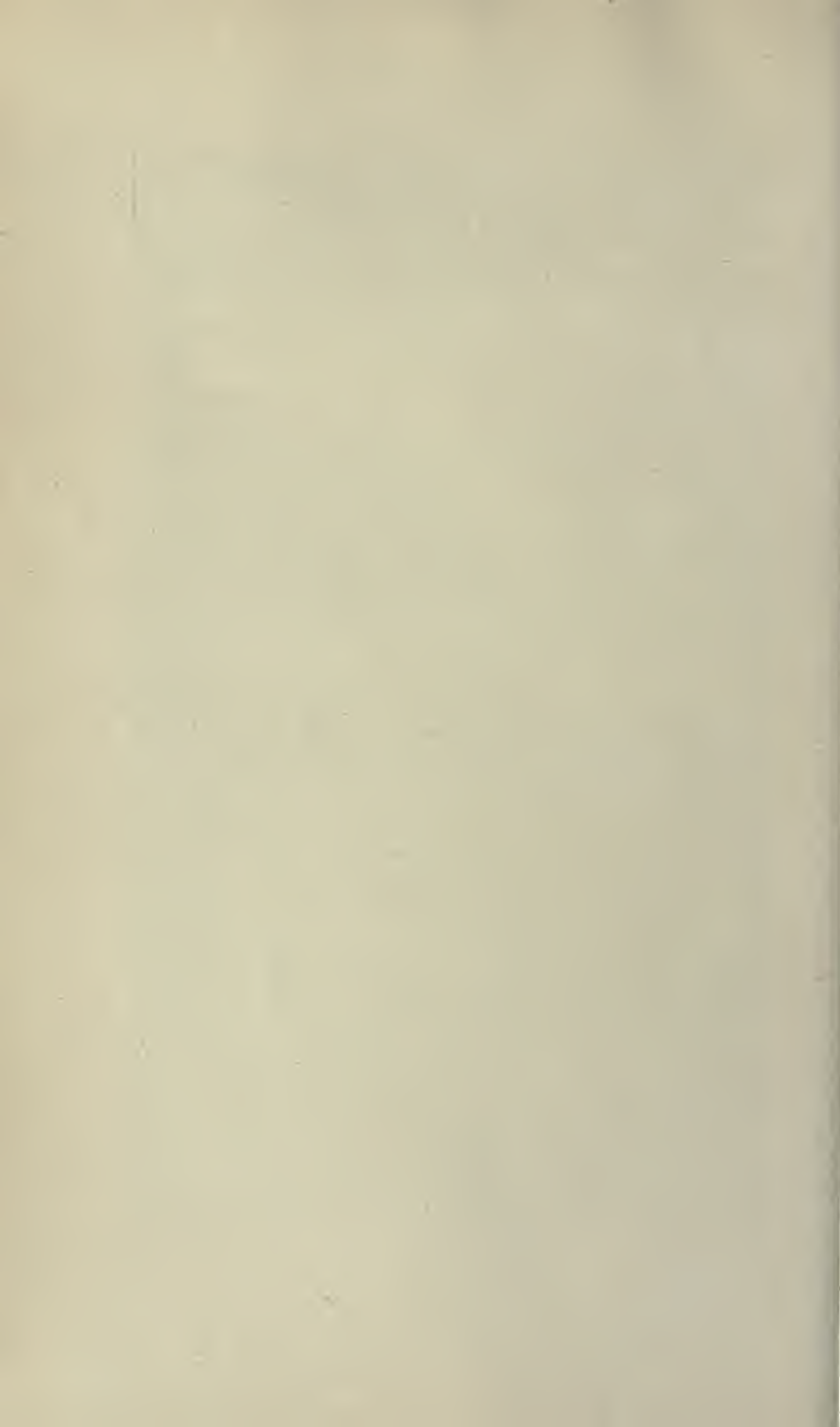
The floors of the rock shelters in France are covered with debris; part of it has fallen from the overhanging cliffs, a part has been carried in by the winds, a part, the refuse, bones, charcoal, ashes, fragments of flint, of the prehistoric men who occupied the sites.

In working this particular shelter it occurred to Didon that he might be overlooking some of the smaller artifacts in the earth as it was shoveled out. Providing himself with sieves, he carefully sifted the dirt as it was removed and by so doing secured 140 beads and pendants, which otherwise would have been largely overlooked. The layer from which the objects were obtained is Middle Aurignacian in age.

It would be remembered that the Aurignacian lived during the closing stages of the last glacial epoch. The severity of the climate had compelled large numbers of Arctic and North Temperate Zone animals to migrate into central and southern France. Game was plenty and the people made use of their bones and horns for various purposes, including that of ornamentation. The climatic conditions compelled the Aurignacians to dwell in the caves of the region, where they lived a more or less precarious and uncomfortable life, battling with the cold and with the large predatory animals who disputed with them the right to



Aurignacian Necklace
Logan Museum, Beloit College
Plate 1



occupy the caves. In spite of their difficulties they were a very high grade of men; they were not descendants of the cave men who had lived in the region in earlier times, such as the Mousterian, but they represented the influx of a different type of man, more intelligent, with higher culture and greater ability than prior peoples had possessed. They had larger, or at least better brains and better technique in working stone and they add a noteworthy and distinct advance in the shaping of bone and horn over their predecessors.

Their most characteristic industry, perhaps, was the manufacture of flint blades of superior forms, thin, long, knife-like in character. The Aurignacian marked the culmination in the making of such blades in the earlier stone age; neither before nor since has their technique been excelled. They used these blades for various purposes. One undoubted use was for cutting and scraping bone into any desired form. In manufacturing these blades they very frequently threw off fine splinter-like pieces of flint from the cores, generally triangular in section and coming to a point. These fine splinters are important because for the first time in human history man had a tool with which he could drill fine holes in bone, stone or other material; this made beads possible. While they were fashioning bone and ivory into small objects with flint blades they were trying the experiment of drilling holes through these objects and before they were aware of it they had made true beads all drilled and ready to string on thongs or sinews to be worn as pendants, bracelets or necklaces, as the case might be.

The beads of the particular necklace here described are made partly of stone, such as jasper, jadeite, quartz and partly of bone and ivory; there is also one small drilled shell in the assemblage. Fifteen of the beads are stone, one hundred twenty-one of bone and ivory. There are two types of beads; one a flat disc type, the other a well rounded form with a broad base but thinned out where the hole is drilled, a type which the French call a "basket type". Several hundred of these beads have been found in France and all seem to conform to the two types, which indicates that they are not merely accidental nor chance forms.

The smallest bead has a diameter of three millimeters; the larger range up to a centimeter or more.

Material was found in the rock shelter which makes it possible

to state the method used in the manufacture of the beads. The worker took pieces of bone or ivory and scraped them down to cylinder form with flint scrapers or spoke-shaves, then the cylinder was divided into equal sections by deep creases, the segments thus prepared were separated into pairs, rounded off still more, drilled and separated into individual beads; the drilling being performed with the fine flint flakes of the period. A great deal of work was expended on each individual bead or pendant; all are well shaped and polished, even those made of stone. Whether this finish is due to use or to intentional polishing is not known.

The Logan Museum of Beloit College has leased a site in the environs of Les Eyzies, France, known as the Rocher de la Peine. The horizon is Upper Magdalenian as is indicated by the type of bone harpoon taken from this particular level. This year, the owner of the site, M. Esclafer, while doing some individual searching, found the Magdalenian necklace represented in Plate 2. The parts of the necklace were close together and not scattered, and probably represent a burial though the skeleton of the wearer had utterly disappeared.

The necklace is made up of one fish vertebra, fifteen more or less broken pieces of the elephant tusk shell, dentalium, two coiled shells related to the genus *Nassa*, eight teeth of rodents and carnivores. In addition there are four pendants, the canine teeth of the cave bear; these are three and one-half inches long. One of the teeth has two dozen or more engraved, horizontal lines upon it, so called tally marks. The other teeth are unmarked. The shells and teeth composing the necklace are well polished, probably by use; the original striations on the dentalium shells are much worn or even entirely obliterated.

The Magdalenian necklace is much later than the Aurignacian; possibly a lapse of several thousand years may have intervened.

It is clear that there has been a decadence in the art of necklace making in this interval, in so far as workmanship and design are concerned. In the Magdalenian necklace there is an abandonment of the tedious shaping and drilling of bone and ivory. A minimum of work is expended, the teeth merely being drilled, while the dentalia need no drilling, as they are naturally hollow tubes.

The use of the teeth of a dangerous animal like the cave bear indicates the rise of a belief in the magical powers that come



Magdalenian Necklace
Logan Museum, Beloit College
Plate 2



from wearing the teeth of large and predatory animals; it is simply a matter of contagious magic, all this without denying their ornamental value.

The increased use of shells is also notable; this might well be because of an appreciation of their beauty, their attraction as means of decoration. It might arise, also, from the difficulty of obtaining shells, this would be especially true of dentalium shells. They live in several fathoms of water and it is extremely hard to obtain them by any dredging methods that primitive people would be likely to devise. The rarity of the shells thus becomes a factor of importance, this scarcity naturally depending also on remoteness of the source of supply. Far removed from the sea shore shells have a value and also a mystery which would not be apparent in the case of maritime peoples. The inland distribution of these shells in France is important as indicating trade relations with sea shore tribes or long journeys to obtain the desired objects.

The conditions in Paleolithic France might not be dissimilar to those obtaining in recent times among the Great Plains Indians, for example. It is a well known fact that the Dentalium was highly prized by Indians and that it was extensively used by them both as ornaments and as media of exchange. They were eager for them and obtained them at all hazards and at a high purchase price.

It will be noted that there is no attempt made to shape any of these shells. The dentalia are broken into short lengths and spiral shells are drilled but beyond that nothing is done. They do not attempt to use types of shells like the pelycopods which could be cut into discs or carved in any desired form. There is nothing here of the elaborate working of shell that arose later.

As the Magdalenians were believers apparently in magic and magical practices, the use of shells in burials may have had certain significance arising from their beliefs in magic. It may well have been an early stage in the rise of a shell cult which spread through western Europe and finally was carried into Egypt. A cult which involved beliefs in the Mana of shells, that mysterious power which belonged to them as once living objects and which they could still convey, making possible a resurrection from the dead and an entrance into a future life. If such a cult had arisen among the Magdalenians it would explain their choice of shells in burials rather than the more elab-

orate but less significant ivory and stone beads of the earlier Aurignacians.

To the writer's mind we cannot draw very sound nor scientific deductions from the comparison of two lone necklaces. Much more material must be obtained and compared before any safe ground is reached. We know, however, that the art of the later Magdalenian was decadent and continually declining. It is natural therefore to attribute the less elaborated necklace of the Magdalenian to this decline in art and in artistic endeavor rather than to any other cause.

GEORGE L. COLLIE.

A MINNESOTA BANNER STONE

While taking gravel in June, 1924 from a gravel pit on the north bank of the Minnesota River a mile and a half northwest of Granite Falls for the State Highway Department, Mr. G. W. Freed of Granite Falls uncovered a beautiful banner stone in a rock cyst burial. The site was some 200 feet above the river. The top of the grave as Mr. Freed describes it was about 3 feet below the surface of the ground, being covered with an upper layer of dirt about a foot thick, and a lower layer of 2 feet of gravel.

The cyst, estimated as 4 feet long and $2\frac{1}{2}$ feet wide, was formed with rocks, perhaps a dozen being used to make the cover and sides. The body or the bones had apparently been gathered into a bundle and the arrangement as described by its discoverer corresponds with the type of interment known as the "bundle burial". The burial had been covered with red paint, and traces of this substance can still be seen on the banner stone. An arrow point, not described, clam shells, and a very fine banner stone were found in the grave. Unfortunately the banner stone was broken by a wheel of the gravel wagon before being picked up, but both parts were preserved.

The banner stone is of green mottled granite, 4 inches across its wings, $2\frac{7}{8}$ inches long, and $\frac{7}{8}$ of an inch thick. The wings are slightly convex from tip to tip and carefully rounded off to meet the ends which are flat and practically parallel. The hole, slightly smaller than the size of a dime, has been bored completely through and smoothed off so that no line of drilling

shows. The piece has been beautifully finished, and it still retains something of the high polish which it must once have had.

A comparison of this specimen with illustrations published in Warren K. Moorehead's *Stone Ornaments of the American Indian*, and Charles E. Brown's "The Banner Stone Ceremonials of Wisconsin" in the *Wisconsin Archeologist* (10:145-164) shows such similarities to Wisconsin types of banner stones as to render it probable that this banner stone reached western Minnesota from Wisconsin through some intertribal exchange or warfare, and, being a prized possession, was buried with its owner. Banner stones are rare in Minnesota, and Professor N. H. Winchell was able only to learn of the finding of one such specimen in the State.

From additional information supplied by Mr. Freed regarding the presence of stone circles to the number of 18 or 20 on the surface in the immediate vicinity, it would appear that there had been a village located near the grave, but his description was not sufficient to make an account of the site possible.

This interesting archeological specimen has been placed on deposit in the museum of the Minnesota Historical Society by its finder and owner, Mr. G. W. Freed of Granite Falls, Minnesota.

WILLOUGHBY M. BABCOCK.

LION AND WOLF INDIAN MEDAL

An interesting addition to the list of Wisconsin Indian medals is a solid silver King George III medal recently obtained by Dr. Alphonse Gerend, a member of the Society, in Forest County, Wisconsin, and which, he states, was formerly the property of the Potawatomie chief Ahquewee.

This medal is $2\frac{3}{8}$ inches in diameter. The obverse has upon it a bust of King George III in armor facing to the right. He wears the ribbon of the garter. The legend, which partly encircles the bust at its upper margin reads: "Georgius III Dei Gratia". Upon the reverse there appears a small figure of the British lion in repose and at his right a snarling wolf. In the background are a church and two houses and a group of trees. The reverse of this specimen is much worn probably through long use. The medal has at its top a silver loop for its attachment, probably by a ribbon, to the person of its owner.

The Handbook of American Indians (p. 833) gives the following information concerning these British medals. "In 1765 a treaty was made with the British and Pontiac and his chiefs were presented by Sir William Johnson, at Oswego, with medals known as the "lion and wolf medals". A large number of these were distributed, and two reverse dies have been found. The design represents the expulsion of France from Canada.

Dr. Gerend has learned that two specimens of this particular medal are in the collections of the American Numismatic Society, in New York. His is the first specimen which has been recovered in Wisconsin, where others must have been distributed. Many Wisconsin Indians were allies of the famous Ottawa chief Pontiac in his conspiracy in 1763. The Milwaukee Indians, especially, were interested in Pontiac's plans for the capture of the British posts on the Lakes and in Ohio and are reported to have sent a wampun belt painted red to the Menomini with an invitation to assist in the taking of the British fort at Green Bay.

Many types of medals were distributed among the Indians of the eastern United States and Canada by the British in the years 1661 to 1814. Specimens of some of these have been recovered in Wisconsin and are described with other Indian medals in articles which have appeared in The Wisconsin Archeologist (v. 14, no. 1 and v. 17, no. 1).

ADDITIONAL INFORMATION ON THE DISTRIBUTION OF DISCOIDALS, CONES, PLUMMETS, AND BOAT STONES IN WISCONSIN

In the December, 1908, issue of The Wisconsin Archeologist (v. 8, no. 4) the Society published a description of the discoidals, cones, plummets and boat stones collected from Indian sites in the state up to that time, with notes on the abundance and distribution of these classes of stone objects.

Since that time additional specimens of all of these early Indian artifacts have been collected and it is desirable that this new data be also made available to students of Wisconsin archeological history.

Discoidals

Specimens or additional specimens of these generally uncommon stone artifacts have been found in the following localities: Aztalan, Jefferson County; near Rubicon, Dodge County; Fox Lake, Dodge County; Muskego Lake, Waukesha County; Baraboo and Greenfield Township, Sauk County. These recent collections do not extend the northward nor westward range of discoidals in the state. Of the three specimens collected at Aztalan, two were obtained on the site of the famous once stockade-protected enclosure, the other from a field in the vicinity. One of the former is in the State Historical Museum and the other in the H. M. Jaycox collection in the State Normal School at Whitewater. None of these recently found discoidals are perforated. The cavities on the sides are of different diameters and depths. The largest specimen measures nearly $3\frac{5}{8}$ inches in diameter. It comes from the shore of Bass Bay, Muskego Lake.

Cones

Additional specimens of these interesting stone objects of unknown use have been recovered at Black Wolf Point, Winnebago County; in Fond du Lac County (exact locality unknown); Menomonee, Waukesha County; Lake Koshkonong, Jefferson County, and Burlington, Racine County. All of these specimens are, it may be noted, found within the area outlined in the 1908 issue of *The Wisconsin Archeologist* above mentioned. All are of small size and are made of slate, limestone and of harder rocks.

Plummets

The finding of eighteen additional specimens of these has come to our attention. These were obtained from the bank of the Wolf River, in Langlade County; Stevens Point, Portage County; Sturgeon Bay, Door County; Point Sable, Red Banks, and from Cedar Creek, Preble Township, Brown County; West Point Township (4 specimens) and Livingston, Columbia County; Mud Lake region, Dodge County; Lake Koshkonong, Jefferson County, and from Lake Kegonsa, Lake Monona (2 specimens) and Lake Mendota, Dane County (2 specimens). The finding of these additional plummets does not extend the previously known range of these objects in the state. The four specimens found in West Point Township, Columbia County,

were obtained from a gravel pit on the R. Van Ness farm where they probably accompanied Indian burials. These specimens are all of slightly different shapes. The smallest is $1\frac{3}{4}$ inches and the largest nearly $2\frac{1}{2}$ inches in length. Two of the specimens are encircled by slight grooves near their pointed extremity. One specimen is made of calcite, one of limestone and two of harder rocks. One plummet found on the Bingham farm, on the east shore of Lake Koshkonong, has an incised figure, probably intended to represent the thunderbird, on one surface. Another plummet ornamented on one surface with a vertical and several diagonal incisions was found years ago at Pewaukee Lake, Waukesha County.

Boat Stones

Only three additional boat stones have been found. One of these comes from the distant region about Merrill in Lincoln County, one from Jordan Lake, Adams County, and one from Norway Township, Racine County. The Jordan Lake specimen is made of steatite and is $4\frac{5}{8}$ inches in length. Its upper surface is gracefully rounded with prominent upward and outward projecting extremities. Near these extremities perforations extend from the curved top through to the rather deeply excavated base of the specimen. Previous to the finding of a boat stone at Merrill no specimen has been reported from a locality farther north in the state than Waupaca County.

Hemispheres

Of the hemispherical stone objects to which the name of hemispheres has been given only one or two specimens are known to have been recovered from Wisconsin Indian sites. One of these, found in recent years on the H. McGovern farm, at Little Mud Lake, in Portland Township, Dodge County, is made of a hard black stone, and is highly polished. This specimen is $1\frac{3}{4}$ inches high and its base is $3\frac{1}{4}$ inches in diameter. Another smaller specimen, comes from near Little Rapids, Brown County. This stone is unique among hemispheres in having a horizontal perforation drilled through it near its base. It is made of slate.

CHARLES E. BROWN.

A COPPER PIKE

A large copper pike recently found at Spring Valley, Pierce County, Wisconsin, measures 12 inches in length and $\frac{5}{8}$ of an

inch in diameter at its thickest part. Its weight is $12\frac{1}{2}$ ounces. This specimen tapers to a long sharp point at one extremity and to a shorter, more rounded point at the other. It is circular in section.

The largest known specimen of these pikes is in the collections of the Field Museum of Natural History at Chicago. Its length is about 40 inches, it is one inch in diameter and weighs $5\frac{1}{4}$ pounds. It tapers to a point at each extremity. This large copper implement is said to have been obtained from an Indian burial mound on the Abraham place at Peshtigo, Marinette County.

Another large copper pike, in the Henry P. Hamilton collection, in the State Historical Museum, is 29 inches long, $\frac{7}{8}$ of an inch in diameter and weighs $2\frac{3}{4}$ pounds. At about one inch from the pointed extremity is a broken projection which may have been a barb. The other end terminates in a small claw or broken eye. This specimen was found at Maple Creek, Outagamie County. In the T. W. Hamilton collection at Berlin there formerly was a pike which was $18\frac{1}{2}$ inches in length. It weighed $11\frac{1}{2}$ pounds. A copper pike was found at New Haven, Adams County. This specimen is $14\frac{1}{2}$ inches in length and weighs $1\frac{3}{8}$ pounds.

Other large specimens of these fine native copper implements are in the Oshkosh Public Museum, and Milwaukee Public Museum collections.

ARCHEOLOGICAL NOTES

A meeting of the Wisconsin Archeological Society was held in the Trustee hall in the Milwaukee Public Museum, on Monday evening, February 1926. Vice-president Charles G. Schoewe conducted the meeting. The number of members and visitors present was 110. Secretary Brown made a preliminary announcement of the plans for the Silver Anniversary meeting of the Society to be held on March 15, and of the annual joint meeting of the Society and the Wisconsin Academy of Sciences, Arts and Letters to be held at Whitewater on April 9 and 10.

Mr. George A. West gave an interesting lecture on "The Cliff Ruins of Navajo Canyon, Arizona." This he illustrated with numerous colored slides. Dr. Barrett and he had conducted explorations with a Milwaukee Public Museum party in that region locating and investigating a large number of cliff ruins some of which were in a fine state of preservation. At a meeting of the Executive Board Mr. Joseph J. Moody and Mr. Robert J. Kieckhefer, Milwaukee, and Mr. Alex. B. Uhrig, Oconomowoc, were elected life members of the Society.

An account of the Silver Anniversary meeting of the Society held at Milwaukee on Monday evening, March 15, is printed elsewhere in this issue of the Wisconsin Archeologist. The holding of this meeting necessitated a postponement of the Annual meeting of the Society and election of officers to April 19. At the Anniversary meeting Dr. S. A. Barrett and Mr. Daniel W. Norris, Milwaukee, were elected life members and Mr. George Richardson, Wauwatosa; Eldon G. Wolff, Milwaukee; Miss Vivian Morgan, Madison and Mr. H. V. Tennant, Portage, annual members of the Society.

In connection with the anniversary celebration of the Wisconsin Archeological Society it may be remembered that in the work of preserving and marking the Indian landmarks of Wisconsin four women members have in past and recent years performed especially valuable services.

These are the late Miss Julia A. Lapham of Oconomowoc, a daughter of Dr. Increase A. Lapham; Mrs. Jessie R. Skinner and Mrs. Edwin H. Van Ostrand, Madison, and Mrs. Angie Kumlien Main, Fort Atkinson. Each of these ladies has in turn served as chairman of the History and Landmarks Committee of the Wisconsin Federation of Womens Clubs. Thus the active cooperation of the Federation has been secured in the preservation program of the Society. Miss Louise P. Kellogg, Madison, has, by her addresses and lectures given before numerous women's and other organizations in the state, contributed very greatly to the success of this very important educational work. The Society has among its members other women who have and are ably assisting in this department of its labors. The Wisconsin Daughters of the American Revolution have also frequently given valuable assistance.

Since its organization many members of the Wisconsin Archeological Society have presented archeological and ethnological collections to Wisconsin museums. The Milwaukee Public Museum has received such collections from George A. West, W. H. Ellsworth, Ezra H. Stiles, J. G. Albright and other members. Mr. Frank G. Logan has purchased and presented to the Logan Museum, Beloit College, valuable collections made by W. H. Elkey, Frederick S. Perkins, W. H. Ellsworth, Theodore Kumlien and others. Mr. J. P. Schumacher's

valuable collection has been for years in the Green Bay Public Museum. The collection of Mr. James G. Pickett was purchased by Mrs. Leander Choate in 1905 and presented to the Oshkosh Public Museum. A. P. Kannenberg and others have also added to its anthropological collections.

In the State Historical Museum are collections obtained from Henry P. Hamilton, W. A. Titus, Mrs. Emma House, W. W. Gilman, H. L. Skavlem, Dr. A. Gerend, G. A. West, W. W. Warner, Dr. Louis Falge, F. du Freune, Geo. L. Boundey, Mrs. Hans Olson and C. W. Bertram. The late Mr. Willis P. Clarke presented his collection to Milton College. The collection of Rev. F. S. Dayton is in the public museum at New London. Mr. Olgar P. Olson's collection is in the public library museum at Darlington. The collection of Mr. Frank H. Lyman has been recently installed in the museum in the new court house at Kenosha, that of Hubert M. Jaycox in the State Normal School at Whitewater. Other collections have been presented by members to the museums at Baraboo, Kewaunee, Sheboygan, Waukesha, Appleton, Waupun, Portage, Hudson, and to state schools and colleges at La Crosse, Waukesha, and St. Francis.

Many other cities in Wisconsin are still without public collections. Here is an opportunity for other members of the Society and of the Wisconsin Museums Conference to perform valuable services for Wisconsin students and the general public.

The Lewis Henry Morgan Chapter, New York State Archeological Association, held its Tenth Annual Banquet at the Rochester Club, Rochester, New York, on Tuesday evening, February 23. Prof. H. C. Shetrone of Columbus gave an illustrated talk on his recent discoveries in the mounds of Ohio. Mr. Alvin H. Dewey is the president of the Chapter.

A recent report of the United States National Museum announces that D. S. Bullock, a member of the Wisconsin Archeological Society, has contributed a collection of ethnologica from various tribes in Argentina, Peru and Bolivia to the National Museum. This material consists of native Arucanian loom work, native silver ornaments showing the influence of ancient Peruvian decorative motives, specimens of Aymara, Lengua and Chamacoco folk art, and various weapons and objects connected with social life. Mr. Bullock is now located at Angol, Chile.

The Logan Museum, Beloit College, has arranged for a tour of European prehistoric research under the direction of Prof. George L. Collie. Its purpose is to acquaint undergraduates of American colleges and others who are specially interested, with the life and activities of prehistoric men. Visits will be made to museums at London, Cambridge, Oxford, Salisbury, Paris, Toulouse, Berne, Zurich and other European cities, and to archeological stations at Amiens, Periquex, Lavallette-Villebois, Les Eyzies in France and Tebessa, Algeria. The Tour will sail from New York on June 24, and a return will be made on September 14.

The Central Section, American Anthropological Association will be held at Columbus, Ohio, on May 14 and 15. During this meeting members of the Section are to be given an opportunity of visiting Fort Ancient, the Serpent Mound and other major antiquities of Ohio. Persons who are interested in becoming members of the Section are requested to address Mr. George R. Fox, secretary-treasurer, Three Oaks, Michigan.

The heirs of Mr. Charles W. Bertram have presented to the State Historical Museum an archeological collection made by him from an Indian village site on his former farm at Good Hope, on the upper Milwaukee River, in Milwaukee County. Mr. Bertram was for years a member of the Wisconsin Archeological Society.

A leaflet describing "Missouri Cave Remains" by Prof. Alfred C. Burrill, a former member of the Wisconsin Archeological Society and now curator of the Missouri State Museum, has been issued by the Office of the Secretary of State, Jefferson City, Missouri.

The Canadian Government at Ottawa has issued a volume of "Eskimo Songs" (Songs of the Copper Eskimos) by Helen H. Roberts and D. Jenness, being a part of the Report of the Canadian Arctic Expedition, 1913-18. Copies may be secured through the Victoria Memorial Museum, Ottawa.

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NEW SERIES

No. 3

The Columbus Meeting Additional Stone Spuds



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Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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WISCONSIN STONE SPUD

The Wisconsin Archeologist

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Vol. 5

MADISON, WIS., JULY, 1926

No. 3

New Series

ANTHROPOLOGISTS MEET AT COLUMBUS

The annual meeting of the Central Section, American Anthropological Association, was held in the State Historical Museum on the campus of the University of Ohio, at Columbus, on Friday and Saturday, May 13 and 14. On Friday morning about sixty members and friends of the Mid-West Section gathered in the rotunda of the Museum where they were registered, provided with badges and welcomed by a reception committee consisting of Director William C. Mills of the Museum staff and members of the Ohio Archeological and Historical Society.

At 10:00 a. m. the meeting was called to order in the Museum auditorium by President Charles E. Brown. Mr. A. C. Johnson, president of the Ohio Archeological and Historical Society delivered an address of welcome to the members and to which Mr. Brown responded.

The first number on the Central Section program was a symposium on "Anthropology in Institutions of Higher Learning" in which Professor Fay Cooper Cole, Dr. Carl Guthe, Dr. W. C. Mills, Dr. George L. Collie, Prof. Charles R. Keyes, Mr. George R. Fox, Dr. J. E. Pearse, Mr. P. E. Cox, Dr. A. V. Kidder, Prof. Warren K. Moorehead and others participated. These discussions showed that some progress was being made in the universities and colleges of a dozen or more different states in giving instruction and lectures in anthropology, in the training of anthropological investigators, in conducting archaeological and ethnological field work, and in assembling collections for study and exhibition purposes.

Papers presented at this time were the following:

"Adaptation of Hopewell-Culture Mound Designs to Present Day Artistic Utilization"—H. R. Goodwin, Ohio State Museum, Columbus, Ohio.

"Iowa Pottery Complex"—Dr. Chas. R. Keyes, State Archeologist, Mount Vernon, Iowa (illustrated).

"Some Notes on Pottery Classification"—Dr. Carl E. Guthe, University of Michigan, Ann Arbor, Mich.

"Some Unique Stone Artifacts from Texas"—Prof. J. E. Pearce, University of Texas, Austin, Tex.

In the discussion of these papers many of those present took part. Mr. Goodwin's paper and the colored designs with which it was illustrated attracted special attention.

The members took luncheon together at the University Union cafeteria, many afterwards strolling over the fine Ohio campus or returning to the Museum to view the rich and extensive collections displayed in its halls.

The program continued through the afternoon, the following interesting papers being presented and discussed in turn:

"Basic Problems of New World Archeology"—Dr. A. V. Kidder, Secretary, The American Anthropological Association, Andover, Mass.

"Michigan Mounds, with Special Reference to Two in Missaukee County"—B. F. Greenman, Museum of Zoology, Ann Arbor, Mich.

"Wisconsin Indian Harpoon Points"—Chas. E. Brown, Secretary, Wisconsin Archeological Society, Madison, Wis.

"Shell Mound Builders"—Geo. R. Fox, Director, The E. K. Warren Foundation, Three Oaks, Michigan.

"Navigating the Inland Waters of Michigan with the Indians"—Dr. W. B. Hinsdale, Curator of Archeology, Museum of Zoology, Ann Arbor, Mich. (illustrated)

"Upper Magdalenian—Culture as Revealed by Specimens Taken from the Logan Museum Site at Les Evzies, France"—Dr. Geo. L. Collie, Beloit College, Beloit, Wis.

Evening Meeting

In the evening the members of the Section were entertained at dinner by the officers and members of the Ohio State Archeological and Historical Society. Dr. William C. Mills presided and at its close gave a very interesting talk on the work and plans of the state society. The members of both societies then returned to the Museum auditorium where a very interesting, instructive and finely illustrated lecture on "The Hopewell Mounds" was given by Mr. H. C. Shetrone, curator of the Ohio Society.

The Section program continued through the morning of Saturday, May, 15, the following interesting papers being submitted and afterwards discussed. Two of these were offered by stu-

dents in Professor Cole's anthropology courses in the University of Chicago.

"A Re-statement of the Problem of Diffusion vs. Independent Origin"

—Dr. Ellsworth Faris, University of Chicago, Chicago, Ill.

"Contribution of Anthropology to the Study of the Alien Problem"—

Dr. Fay-Cooper Cole, University of Chicago, Chicago, Ill.

"Suicide Among Preliterate Peoples"—Ruth Sonle, Chicago, Ill.

"An Anthropological Approach to the Study of Human Dentition"—

Wilton Krogman, Chicago, Ill.

The business session of the Section was then held. Secretary George R. Fox presented his annual report which was approved. The auditing committee reported that they had examined and approved the report of the Treasurer. A resolution thanking the Ohio Archeological and Historical Society for its very generous hospitality was unanimously adopted. Invitations were received to hold the 1927 meeting of the Section at Nashville, Tennessee and Chicago. It was voted to accept the Chicago invitation. Prof. Charles R. Keyes was elected president of the Section, Prof. Fay Cooper Cole vice-president and Mr. George R. Fox, secretary-treasurer. Mr. Charles E. Brown was elected a member of the Board of Directors.

The Pilgrimage

For Saturday afternoon and Sunday a two day automobile pilgrimage to the major Indian antiquities of Ohio had been arranged for the members of the Section by Dr. Mills and the members of the Ohio Society.

After a brief halt at Wilmington, where the party was joined by other members of the Ohio Society, Fort Ancient was reached.

Fort Ancient, the most famous ancient Indian earthwork fortification in the United States, now preserved in a state archeological park, is located on the banks of the Miami river, in Adams County, Ohio. It covers a total area of about 100 acres. This remarkable ancient fort has been so often described that no description of it need be given here. The entire afternoon was devoted to rambling over its earthen walls, which are in different places from 6 to 10 and from 12 to 19 feet high and are pierced by 54 entrances or gateways; in examining the

mound and other evidences within its three divisions, the "Old Fort", "Middle Fort" and "New Fort", and in listening to talks given by Mr. Shetrone and Professor Moorehead. The party returned to Wilmington for the night.

On the following morning, the party having been further increased by the arrival of other members of the Ohio Society, the pilgrimage proceeded over fine Ohio highways and through a charming countryside of hills and woodlands, then brightened with blooming redbud, dogwood and hawthorn, to Serpent Mound Park.

This famous prehistoric earthwork, in the form of a huge serpent with open jaws, is on the middle of a spur about 100 feet high, overlooking Brush creek and East creek, in northern Adams county. The height of this earthwork is from 2 to 4 feet, and its width from 15 to 20 feet. Its entire length, measured from its head to the point of the tail, is about 1500 feet. An oval enclosure directly in front of the head of the serpent is 80 by 160 feet in diameter. From an observatory on the grounds a fine view of the head and curves of the body of this remarkable mound is to be had. Near the home of the park caretaker the Ohio Society has erected a small building in which Indian implements collected near the Serpent Mound are exhibited.

At noon the members of the pilgrimage partook of a picnic lunch beneath the trees near the mound. Dr. A. V. Kidder, secretary of the American Anthropological Association, gave an interesting talk.

The pilgrimage was again resumed other halts being made during the afternoon near Bainbridge where the great Seip mound, now in process of examination by the Ohio Society under the direction of Mr. Shetrone; the famous Hopewell Mound Group; the Mound City Group at old Camp Sherman, at Chillicothe; the Logan Elm near Circleville, and other notable Indian remains were viewed. At the Seip Mounds Mr. Shetrone gave an interesting talk on the rich results of last season's excavations of a portion of one of these large mounds and of Dr. Mills' previous examination of the other.

The Logan Elm

The visit to the Logan Elm proved to be as interesting as the mound groups mentioned. This famous tree is preserved by the

Ohio Society in a state park, Logan Elm Park, located about seven miles south of Circleville, near the road leading from that city to Chillicothe. This huge tree derives its title to enduring fame from the fact that beneath its great outstretched limbs Logan, the Mingo chief, delivered his famous message or speech in October, 1774, at the conclusion of the Dunmore War. The immediate occasion of this war was the Indian troubles along the Ohio river. Lord Dunmore was the royal governor of Virginia. "The tree is today the oldest living thing in Ohio." Its long limbs, have a combined stretch of about 150 feet.

After leaving Circleville the members of the Section returned to Columbus after the most interesting and eventful meeting which it has ever held.

ADDITIONAL STONE SPUDS

In the October 1902 issue of *The Wisconsin Archeologist* there was published an article describing the so-called stone spuds or paddle shaped implements found chiefly on Indian sites in Wisconsin and most of them preserved in public and private collections in the state. These were grouped in two principal classes, the first including implements with broad circular, semi-circular or triangular blades and generally long, tapering handles, and the second implements with crescent shaped or oval blades and short handles. Most of these latter implements showed abundant signs of hard or continued use. A third class consisted of broad, flattish implements of comparatively small size, and generally made of slate or other soft stone. Some had a single perforation in the handle and although of spud shape were probably used as ornaments.

Of thirty-three of these spuds described and figured all were collected in southern Wisconsin counties, twelve from counties in the southeastern corner of the state and four from Grant and Vernon counties in the southwestern corner. Of the three found farthest to the north in Wisconsin, two came from Winnebago County, and the other from Brown County. These thirty-three specimens ranged from $5\frac{1}{4}$ to $22\frac{1}{4}$ inches in length, the largest specimen being obtained at Oconomowoc, Waukesha County. Twelve were 9 inches or more long. Of these seven came from

Waukesha, three from Sheboygan, three from Grant, three from Winnebago, three from Washington, and one each from Sauk, Vernon, Ozaukee, Rock, Dodge, Racine, Door and Brown counties. The precise locality of six specimens was unknown. The blades of a number of broken specimens had also been found. These were evidently parts of specimens of large or medium size.

Since the publication of this original list and classification, twenty-four years ago, the finding of a small number of additional specimens has been brought to our attention. Of these the following are in the collections of the State Historical Museum, at Madison:

1. A finely shaped and polished specimen found near Hammersley pond, in Section 30, Madison Township, Dane County. It is made of dark fine-grained granite and is 10 inches long. The broad, somewhat triangular blade is $2\frac{1}{2}$ inches wide at the shoulders. Its surface is convex the edges being flattened from the cutting edge to the shoulders. The handle of this graceful implement tapers from the blade to its extremity. It is oval in section, $1\frac{1}{2}$ inches wide and $1\frac{1}{8}$ inches in thickness at its middle. The end of the handle is cut off square, not rounded. The handle and blade of this spud are slightly marred by scratches made by a plow or harrow tooth.

2. A second specimen comes from Waukesha County, having been collected years ago by the once well-known collector, Frederick S. Perkins. Its length is 9 inches. The broad flattened blade is triangular in form, its edges also flattened. The cutting edge is slightly marred by use or accident. The blade is 3 inches wide at the shoulders. The handle tapering to its end is rectangular in section, $1\frac{1}{2}$ inches wide and $1\frac{1}{2}$ inches thick at its middle. This specimen is well made of a hard grayish rock, and is ground but not polished.

3. A third specimen comes from southeastern Wisconsin, exact locality unknown. This spud is $7\frac{1}{8}$ inches long. Its blade is circular in outline. Its surface is convex. It is $2\frac{5}{8}$ inches wide. The tapering handle is oval in section, $1\frac{1}{2}$ inches wide and 1 inch thick at its middle. The lower part of the handle shows on one side an old fracture. This specimen is made of diabase (?) and is ground but not polished. A spud of somewhat similar shape in the Museum collections, found at Muskegon County, Michigan, is $9\frac{1}{2}$ inches long. It was for years in the collection of Dr. Louis Lotz of Milwaukee. This specimen

is remarkable for its deeply eroded surfaces. Both sides of the implement are thus pitted and scored over their entire length.

4. Another spud, $7\frac{1}{4}$ inches long, was also found in southeastern Wisconsin. The exceptionally small circular blade is about 2 inches wide. The tapering handle is oval in section, $1\frac{5}{8}$ inches wide at the middle and $1\frac{1}{4}$ inches thick. The material is mica schist.

5. This specimen is reported by Frederick S. Perkins, who collected it, to have been obtained from an Indian burial mound at Wilmot, Kenosha County. Its length is $5\frac{3}{8}$ inches. It has a thick, somewhat circular blade with a battered cutting edge. The tapering handle is hexagonal in section, $1\frac{1}{2}$ inches wide at its middle and $1\frac{1}{8}$ inches thick. A ridge extends down the handle on each side from its end to near the center of the blade. The material is syenite.

Other Spuds

6. In the collection of J. P. Schumacher at Green Bay there is a large spud measuring about 10 inches in length. Its blade is octagonal in section.

7. A spud in the collection of Mrs. Notz at Milwaukee is $7\frac{1}{2}$ inches long. Its blade is circular in form, and about $2\frac{3}{8}$ inches wide. Its broad handle tapers to a rounded point and has flattened sides this flattening extending to the cutting edge of the blade. It was probably found in Washington County. It is made of black diorite and is highly polished.

8. A narrow chisel like spud was formerly in the collection of Dr. Louis Falge, being found in Manitowoc County. It was 7 inches in length, its short blade being semi-circular in outline, its handle tapering from the blade to a rounded extremity. This blade was nearly circular in section.

9. A spud formerly in the W. H. Elkey collection at Milwaukee, and probably now in the Logan Museum collections at Beloit College, came from Paris Township, Kenosha County. This specimen was $6\frac{3}{8}$ inches long. Its broad blade was somewhat oval in form and about $2\frac{3}{4}$ inches wide at its middle. The tapering handle was nearly 2 inches wide and 1 inch thick where it united with the blade.

10. In the Field Museum of Natural History at Chicago there is an exceptionally large and fine spud which comes from either Wisconsin or Michigan, being collected years ago by

Walter W. Wyman. Its length is $13\frac{5}{8}$ inches. Its broad, oval blade is $3\frac{1}{2}$ inches wide at its shoulders and 2 inches wide where it unites with the broad, long tapering handle. This handle is $1\frac{5}{8}$ inches wide at its middle and is oval in section. At its blunt end it is $1\frac{1}{8}$ inches wide. The material is probably diorite.

11. In the F. J. B. Duchateau collection at Green Bay there is a fragment, the blade and portion of the handle, of a large spud. There are five ornamental incisions or notches on each edge of its broad rounded blade, which is nearly 3 inches in width. Marks on its surface show that this implement was used as a hammer stone, probably after being broken. It is made of a hard black stone. It was found at Benderville, Brown County.

12. The blades of two other broken spuds were found on Indian sites at Merton, Waukesha County and in Lake Township, Milwaukee County.

The passing years have added but little to our knowledge of the uses to which these generally fine, stone implements were put by the early Indian inhabitants of the Wisconsin woodlands and prairies. It is more than likely that many were used as tools for removing bark from trees and logs a use for which they would prove most convenient. Others are evidently ceremonialized implements. The finding of many beautiful examples of these implements in the Southern States would indicate that some of them or the idea for the manufacture of them was introduced from the Middle Mississippi valley. In Wisconsin we have specimens from both regions occupied when the white man came to the state by Algonkian and by Siouan tribes. They are rare or unknown in the regions in the East from which our Algonkian Indians came.

A VISIT TO FLINT RIDGE

On May 17, the day following the archeological pilgrimage of the Central Section of the American Anthropological Association, Secretary George R. Fox and Charles E. Brown were enabled through the courtesy of Dr. G. F. Meuser of Columbus to make a visit to some of the most interesting of the famous prehistoric Indian flint quarries on Flint Ridge. The trip was

made by automobile over the National Highway to the settlement of Brownsville where a rough country road was followed to the north for a distance of three miles up Berry Run valley to the cross-roads at Clark's blacksmith shop, the known center of the former great flint quarry and manufacturing industry of the prehistoric redmen of Ohio. At this out-of-the-way attractive rustic retreat, where Dr. William C. Mills, the noted Ohio archeologist, has recently built a summer cottage, a large number of the old quarry pits and accompanying refuse heaps were soon found in a woodland southeast of the cross-roads. The pits, surrounded by large and small trees and brush, were partly filled with leaves and other debris but a few minutes digging with a pick in a number of them soon brought to light the flint and other rock refuse of the industrious Indian quarrymen. The refuse heaps by the side of these pits were composed of similar loose material. Flint outcrops were to be seen in a number of places near the edge of the road and about some of these were strewn flint chips and spalls where the aborigines probably tested the quality of some of the material which they had obtained from the pits.

A plot of plowed ground northeast of the cross-roads corner and only a short distance north of the pits mentioned was found to be thickly strewn with flint chips, flakes and spalls of many colors, occasional flint blanks and scattered hearthstones. Here had been the location of an extensive flint workshop. Many specimens were selected from this site for future study.

A fine report on the Flint Ridge quarries, by Dr. Mills, was published by the Ohio Archeological and Historical Society, in 1921.

From this report the following information is taken:

"The small ribbon-like valley plains, with small streams fed by springs from the "Ridge", would furnish no means of water transportation to and from the source of supply; consequently the only way to reach the "Ridge" was by trails through the deep tangled forest, leading to the great manufacturing center of the prehistoric Indian, in the region of Clark's blacksmith shop. It is striking to observe that the phenomena studied are assembled within a radius of one mile of this place, and at the extreme eastern end of the "Ridge". The flint occurring outside of these two places was of no practical use to primitive man, because of its unfitness for chipping into form on account of

impurities. In the region of the cross-roads the best examples of flint may be found, as well as the largest quarries on the "Ridge".

"An examination of the quarries developed the fact that only a very small portion of the flint deposit was of use to prehistoric man in the manufacture of artifacts, as much of the flint was full of seams and cracks which did not permit of the manufacture of a desired artifact with any degree of certainty, as demonstrated by the many broken blades found on the site of the workshop.

"Another feature of the flint in this section was the presence of countless geodes filled with quartz crystals. The geodes varied in size from that of a pea or less to large geodes from twelve to fourteen inches in diameter. The quartz crystals found in the geodes were usually small, but the large geodes generally contained large crystals. Apparently the crystals, unless very large, were not used in any way and were thrown away with the useless flint.

"The flint found outside of the regions where it was quarried is very porous and fossiliferous, and very frequently mixed with calcareous or argillaceous material, which rendered it useless to primitive man so far as chipped implements were concerned.

"The primitive inhabitants of Ohio made use of various kinds of rock, found in the drift, where the agents of nature—the glacier and floods,—had with almost human discrimination deposited the tough granites and quartzites in convenient places for man to select and reduce to available size and form. But the flint, so highly prized for the manufacture of arrow and spear-heads, occurs only in well defined areas, where the outcrop was available and served as a guide to the great deposit a few feet under the soil.

"Quarrying the flint really begins with the removal of a fragment from the exposed mass or the ground where it was partly buried. It is only a step further when the mass of flint is uncovered, and the flint removed on a large scale.

"A brief resume of quarrying the raw material from which such a large number of implements were manufactured will be of special interest and the following outstanding features, it is believed, will add materially to the fund of information concerning the quarrying of the flint at Flint Ridge.

"The flint was quarried by the use of stone mauls and ham-

mers (none of which were hafted) together with wedges of wood and horn (although no wedges of any kind were found) and pries made of wood.

"No evidence showing the use of fire in quarrying was found in the thirty-three quarry-sites examined and I firmly believe fire was not used as an agent in quarrying the flint, directly or indirectly, as some evidence would have been found in this great number of quarry-sites.

"The flint was removed from the quarry, sometimes only a short distance away, where it was blocked out and then taken to the workshops, usually in close proximity, where the blocked-out pieces were made into blades or cores, the two principal commodities manufactured at the quarries.

"The most striking thing that presented itself was that a primitive people with such crude implements showed such skill and perseverance in quarrying the flint from its bed and then displayed such versatility in fashioning the raw material into blades and cores to transport by man-power to practically every portion of the state."

"Practically all the objects made of flint found on the surface in central Ohio came from Flint Ridge and practically all of the raw material was carried over the trails to the old villages and there specialized into arrow and spear-points, knives, scrapers, saws and drills.

"In a number of old village sites caches of flint blades, still retaining the crude edges and points just as they came from the roughing-out shop at the quarries, have been found. These caches are of great interest as they represent the storage places of surplus supplies to be drawn upon as required.

"The blocked-out specimens found so abundantly at the "Ridge" range in length from twelve inches to three inches and in width from five inches to two inches. They are frequently found near the quarry but the largest numbers are found in the workshops where the blades were finished. When found near the quarry they are usually broken, showing that the piece of flint was defective. The blocking out was perfected by the use of hammers, very much smaller than those used in the heavy quarrying, and ranging in size from three and one-half inches to two and one-half inches in diameter. The hammers were made for the most part of granite, and had to be transported to the "Ridge".

“However, hammers made of flint were frequently found in the section surrounding the blacksmith shop.

“The third industry connected with the manufacture of flint implements is the shaping of the blocked-out pieces into blades ready to be transported, with the smallest amount of superfluous flint, to distant parts of the country. The blades were all shaped in the workshops, which were often located in close proximity to the quarry, in many instances only a few hundred yards distant. On the other hand, the workshop might be several miles away.

“The leaf-shaped blades manufactured in the workshops were of two types, the square base and the round base. The blades are made in all sizes, ranging from the large size down to about two inches in length.

“The second industry developed at Flint Ridge was the manufacture of cores from which knives were flaked. This industry was confined for the most part to the workshops south and south-east of the blacksmith shop.

“The cores are especially prepared flint blocks, so shaped that long flint knives can be flaked from the core. The flint used in making the cores is usually highly colored chalcedony, many of them showing various tints of blue, red, yellow, green and purple.

“Knives flaked from the cores are found in great numbers in the workshops, especially in those south and east of the cross-roads at the blacksmith shop. Many of the cores were subjected to the process of flaking off the knives, and were then discarded; while some of them, we find were carried to distant points where they were utilized as needed.”

After selecting as much material from these remarkable quarries as they could conveniently transport the visitors returned to Columbus conscious of having spent a very profitable part of a day at the great Flint Ridge quarries.

STEPHEN DECATUR MITCHELL

Stephen Decatur Mitchell, the well known Wisconsin collector of Indian archeological materials, died at his home at Mitchell's Glen, at Green Lake, on May 21, at the ripe age of 81 years. Mr. Mitchell was a charter member of the Wisconsin Archeological Society and in former years frequently attended its meetings at Milwaukee. Being located in a region rich in Indian remains Mr. Mitchell was able through his personal investigations and friendly relations with the farmers of the Green Lake countryside to assemble a large collection of Indian stone and other implements and ornaments which he housed in a log cabin museum on his property. This he exhibited to visitors for many years for a small admission fee.

In the year 1917 the Wisconsin Archeological Society published a report on the Indian archeology and history of Green Lake. In the preparation of this report Mr. Mitchell's investigations and knowledge of the Indian history of the region were most helpful. Notes on some of the interesting artifacts in his collection appear in some of the early issues of *The Wisconsin Archeologist*.

Mr. Mitchell was born in 1844, being the son of Archibald and Laura Burlingame Mitchell, his father being a native of Virginia. Archibald Mitchell, his wife and son, Stephen Decatur, then two years of age, took up their residence near Green Lake in 1846, the family being among the very oldest settlers in the community. On October 14, 1867, Mr. Mitchell was married to Miss Viola Potter, of Marquette, Green Lake County. Three months after their marriage they took up their residence on the farm which is now widely known as Mitchell's Glen.

Mr. Mitchell was a veteran of the Civil War, having served as a member of Co. D, Fiftieth Wisconsin Volunteer Infantry. He was at one time the state commander of the Wisconsin department, G. A. R.

AMERICAN MUSEUMS ASSOCIATION MEETING

The meeting of the American Association of Museums held in New York May 17th, 18th and 19th, was one of the most successful meetings of the Association's history. Upwards of two hundred museum representatives, engaged in the active work of museums all over the country, gathered in New York for a three day session. These sessions were unique in this respect. The forenoon was given over to the presentation of special committee reports and papers on special subjects; the afternoon being given over to the study of the particular institution which played host to the Association for the day and in each instance the fullest possible inspection of the institution, its workshops and laboratories was invited by the staff.

The first day was spent at the American Museum of Natural History in New York; the morning session being given over to the presentation of reports of certain committees, particularly the Committee on Museums in National Parks and Outdoor Museums in general and the Committee on the Training of Museum Personnel or "Training for Museum Work."

Very marked progress has been made in the establishment of museums in national parks and in other outdoor sites. The first of these projects has been recently completed, the new museum in Yosemite National Park. This institution was built by a special committee of the American Association of Museums at a cost of \$75,000, this fund being donated for this special purpose by one of the educational foundations. It is the beginning of what should be a large program of museum buildings within the next few years, for each one of our national parks certainly should have a special museum of this kind, explaining its particular features and making the park infinitely more serviceable to the hundreds of thousands of visitors annually within its confines.

The same may be said also of state, county and city parks. These might be greatly enhanced by the placement in each of some kind of an exhibit. This also has been tried in certain parks in the East, these exhibits taking the form of what may be termed wayside shrines, in which special features in the immediate vicinity of this shrine are carefully explained by means of specimens, labels and photographs exhibited in the shrine. Some of these shrines are in the care of a special attendant,

while others have no attendants at all, but are left to the tender mercies of the general public and strange to say, these latter have thus far fared very well indeed, according to reports given at this meeting.

We could in Wisconsin very profitably consider the desirability of placing in our state parks and the Archeological Society could very profitably consider placing in the several archeological parks in its possession such shrines and special explanatory data.

In the matter of training of museum personnel, the committee reported progress and that arrangements are being made to establish as a preliminary to this work a peripatetic scholarship course, the object of which will be to select several of the most likely students who wish to enter the museum field and send them for the period of the year of their scholarship to a number of different museums, in each of which they will receive special training in museum administration, processes and technique.

Several of the largest of the museums in the country have volunteered to undertake such courses of instruction and it is hoped that the coming fall will see this new course of study launched and further it is hoped that this will be but a preliminary to an even more exhaustive and comprehensive course of study to be established in some of our universities later on.

The second days' session was held at the Metropolitan Museum of Art in New York, where further interesting committee reports and papers were read in the forenoon and the afternoon was given over to the study of that great art institution and particularly its newer exhibits, the American wing and a number of other special features.

The third day's session was held at the Brooklyn Institute of Arts and Sciences in Brooklyn.

In addition to these daytime sessions above mentioned, the first two evenings were given over to round table discussions, following informal dinners and the third evening was given over to the annual banquet of the Association, which was held at the Hotel Astor.

Those in attendance ranged from coast to coast and represented museums in practically every center of the United States.

From Wisconsin came representatives of the Oshkosh Public Museum, the Layton Art Gallery, the Milwaukee Art Institute and the Milwaukee Public Museum.

S. A. BARRETT.

WILLIS P. CLARKE

By the recent death of Willis P. Clarke of Milton, a pioneer archeologist, the Wisconsin Archeological Society lost another of its charter members. Mr. Clarke, who was a pharmacist by profession, early became interested in the study of Indian archeological history. The collection of stone and copper artifacts, which he made largely from village and camp sites near Milton and on the nearby shores of Lake Koshkonong; he some years ago presented to Milton College, where it now remains a monument to his interest and public spirit. With former president C. B. Whitford of Milton College Mr. Clarke excavated some of the Lake Koshkonong mounds.

Mr. Clarke was well known to many of the older members of the Society and none ever visited Milton without being taken to see his collection. He was a personal friend of Dr. Lapham, of Frederick S. Perkins, Rev. Stephen D. Peet and of other pioneer archeologists of Wisconsin and he delighted in assisting them in their researches. Some of the Milton, Lake Koshkonong and Indian Ford mound groups were described by Mr. Clarke in *The American Antiquarian* in 1884. Mr. Clarke was a Wisconsin Civil War veteran with an honorable war record. When visited by Mr. C. E. Brown and Mr. H. E. Cole last summer Mr. Clarke was in feeble health but as enthusiastic as ever about local archeological research. They went with him to the pharmacy to see a collection of flint implements which he had gathered and about the interest of which he had much to communicate.

THE AMERICAN HISTORICAL ASSOCIATION ENDOWMENT

The American Historical Association, the one distinctly national organization of its kind in this country, is now, for the first time, making a general appeal to the public for cooperation in the raising of an adequate endowment. The friends of the Association believe that such an appeal is justified by past services and by the assurance, with larger resources, of such greater usefulness in the future.

The Association was founded in 1884 by a notable group of men, which included Andrew D. White, Francis A. Walker, Justin Winsor and Herbert B. Adams. Among its officers have been distinguished historians—George Bancroft, Henry Adams, and Henry Lea, and such distinguished men of affairs as George F. Hoar, Alfred T. Mahan, and Charles Francis Adams. The presidency of the Association has been held by two Presidents of the United States—Theodore Roosevelt and Woodrow Wilson. Though most of its members are engaged in the writing or teaching of history, the roll includes many well-known leaders in business and in public life.

The national character of the Association has been recognized by the Federal Government. It was chartered by Congress in 1889 and its annual reports, presented through the Smithsonian institution, are included in the series of Congressional documents. The general offices are in Washington; the annual meetings, bringing together members from the Atlantic seaboard and the Pacific coast, have been held at such widely scattered points as Boston, Philadelphia, Chicago, Charleston, New Orleans, and St. Louis; one notable summer meeting was held in California.

National Service

The service rendered has also been national. By the terms of its charter the Association is made responsible for the promotion of "American history, and of history in America." The *American Historical Review*, published quarterly by the Association, contains, in addition to articles and reviews, a careful record of what is done by workers all over the country, whether in universities or in state and local historical societies. Other publications of the Association list and index the issues of these allied organizations, making available useful and interesting material which might otherwise be overlooked. In short, the American Historical Association is the chief co-ordinating agency of the historical fraternity throughout the country.

The Association has recognized its civic responsibility in the matter of education. Through the reports and recommendations of its committees, it has stimulated and guided the teachers of history in elementary and secondary schools. It is now, in view of changed conditions, planning a fresh study of these educational problems.

Another form of direct public service is that of the Public Archives Commission, with its valuable reports describing the archives of the states—Herbert L. Osgood's account of the archives of New York is a notable example. Such surveys are not only useful to scholars; they help to set higher standards for the keeping of public records, a matter which certainly concerns a much larger public. Closely associated with this work is a movement which it is hoped will end before long the present disgraceful condition of the National Archives in Washington.

In general, the Association undertakes to place at the disposal of the Government the resources of historical scholarship. The Library of Congress, in building up its great manuscript collections, has often relied upon the expert service of officers and members of the Association. Again, in 1908, one of its committees prepared, at the request of President Roosevelt, a careful report, subsequently printed as a public document, outlining a national policy for the publication of historical material in the National Archives.

Another contribution to a better understanding of American history has been made through the Historical Manuscripts Commission which is constantly locating valuable manuscripts, especially those now in private hands. So far as possible such papers have been secured against loss and made available for students through publication. Among the papers printed by the Association are the letters of the New Englander, Stephen Higginson; the Southern statesmen, John C. Calhoun and Alexander H. Stephens; and such leaders of the Westward movement as Moses and Stephen Austin. Other publications illustrating national politics are the diary of Salmon P. Chase and the Autobiography of Martin Van Buren.

Though the Association has felt peculiarly responsible for "American history, it has never forgotten the wider claims of history in America." Indeed, it is impossible to understand American history if it is completely detached from that of the old world. Several publications deal with international topics—the correspondence of the early French ministers to the United States, the Texan Diplomatic Correspondence, and the papers of James A. Bayard, illustrating the peace negotiations at Ghent in 1814. Since the World War, the Association has been active in promoting scientific cooperation with scholars abroad, a field in which Americans now have new opportunities for service and

leadership. It may be noted in this connection that the prizes administered by the Association are given for studies in European, as well as American, history.

The Need of an Endowment

Such work as the Association has already done, has been made possible only through an immense amount of unpaid service. Since so large a proportion of its members belong to one of the most poorly paid of all the professions, adequate support can not be secured by increasing the annual dues. It is not possible, or even desirable to appeal to Congress for much assistance from the Federal Treasury beyond what is now received through the publication of the Annual Reports. To give permanence to the work already undertaken and to enlarge its scope the Association must have a substantial endowment.

What the Association now asks is an increase in endowment from \$50,000 to \$1,000,000, with the expectation that the additional income thus provided will be used, not only to secure more certain and adequate support for work already undertaken, some of which has been seriously curtailed or delayed by lack of such support; but also to make possible certain new forms of service.

To secure this greatly needed endowment The American Historical Association has appointed a Committee on Endowment consisting of nineteen of its prominent active members. Albert J. Beveridge is its chairman, Evarts B. Greene, vice chairman, and Solon J. Buck, executive secretary, with an office at Columbia University, New York.

THE CATAWBA

The Catawba Indians of South Carolina are spoken of as formerly the most important of the eastern Siouan Indians. The first report of their existence was made by Vanderra, in 1579. Lawson found them in 1701 as a powerful nation with large villages. In about 1682 their number is estimated at 1,500 warriors, or about 4,600 souls; in 1728 at about 400 warriors, or about 1,400 persons. After suffering from several smallpox epidemics their number was reduced in 1775 to 400 souls. Their number appears to have steadily decreased since

that time. In 1885 their number was 120 and in 1911 about 100.

"The known history of the tribe till about 1760 is chiefly a record of petty warfare between themselves and the Iroquois and other northern tribes. With the single exception of their alliance with the hostile Yemasi, in 1715, they were uniformly friendly toward the English, and afterward kept peace with the United States, but were constantly at war with the Iroquois, Shawnee, Delawares and other tribes of the Ohio valley, as well as with the Cherokee. The Iroquois and the Lake tribes made long journeys into South Carolina, and the Catawba retaliated by sending small scalping parties into Ohio and Pennsylvania.

"They sent a large force to help the colonists in the Tuscarora war of 1711-13, and also aided in expeditions against the French and their Indian allies at Fort Du Quesne and elsewhere during the French and Indian war. They assisted the Americans also during the Revolution in the defense of South Carolina against the British, as well as in Williamson's expedition against the Cherokee. At a conference at Albany attended by delegates of the Six Nations and the Catawba, under the auspices of the colonial governments, a treaty of peace was made between these two tribes. The western tribes continued their warfare against the Catawba, who were now so reduced that they could make little effectual resistance. In 1762 a small party of Shawnee killed the noted chief of the tribe, King Haiglar, near his own village. From this time on the Catawba ceased to be of importance except in conjunction with the whites. In 1763 they had confirmed to them a reservation, assigned a few years before, of 15 miles square, on both sides of the Catawba river, within the present York and Lancaster counties, South Carolina. In 1826 nearly the whole of their reservation was leased to whites for a few thousand dollars, on which the few survivors chiefly depended. About 1841 they sold to the state all but a single square mile, on which they now reside."

"The Catawba were sedentary agriculturists, and seem to have differed but little in general customs from their neighbors. Their men were respected, brave and honest, but lacking in energy. They were good hunters, while their women were noted makers of pottery and baskets, arts which they still preserve. They seem to have practiced the custom of head-flattening to a limited extent, as did several of the neighboring tribes. By

reason of their dominant position they gradually absorbed the broken tribes of South Carolina, to the number, according to Adair, of perhaps 20.”*

“Stripped of scarlet robes and eagle’s feathers, the last of the Catawbas, sole survivors of the once powerful Catawba Nation, still linger on ancestral ground on the banks of the Catawba River in York County, South Carolina. There are only about a hundred Indians left now to greet the stranger within the gates of their reservation, yet their daydreams appear to be as roseate as ever. And they cannot forget the glories of Chief King Haiglar or the thrilling days when they were supreme on the headwaters of the Catawba and Santee rivers, over an area as large as that over which a crow could fly in a day, and when no white man nor red man dared to visit the territory of the Catawbas, except by invitation of the masters.

“The Catawba Indians present a wonderful example of faithfulness and devotion to the American people, in spite of the fact that history has ignored them, and the white folks among whom they have lived have mistreated them by breaking faith, times without number. The present Catawbas are descendants of the great race which once made the woods of the Carolinas ring with the war whoop as they went forth against the enemies of the early settlers. Yet they have been oppressed, have dwindled away unnoticed and unhonored until now, the very fact of existence of an Indian in South Carolina is apparently not generally known, even in counties touching the Catawba reservation. Even the school textbooks of the present fail to mention these descendants of the earliest-known inhabitants of the state.

“The 225 square miles of land that was confirmed to the Catawbas in 1764 has gradually been curtailed until now the reservation contains less than 600 acres! It is in a remote part of the state, where the peaceful stillness of the forests has not yet been disturbed. Of the less than one hundred members of the tribe still left, some are of mixed Caucasian and Indian blood.

“The Commissioner of Indian Affairs holds the Catawbas are citizens of South Carolina, yet they do not vote and they pay no taxes. They have virtually no form of tribal government at present. They elect a chief every four years, but this official is merely an adviser. Though they have few laws, they have

*Handbook of Am. Indians.

no need of jails or courthouses, being quiet and peaceable and bloodshed almost unknown.

When the Catawba's work, which is rather seldom, the chief occupation is the making of pottery, earthen ware and pipes. These articles are made in primitive style. They are all shapes and sizes."

The Catawba are of special interest to students of Wisconsin Indian history because of their linguistic relationship to the Siouan Winnebago, Dakota and Iowa whose ancestors came to the Northwest from the same general region.

TO HELP THE WISCONSIN INDIANS

Friends of the Indian are asking congress to empower Wisconsin to disburse the federal funds appropriated for the education, health and general welfare of the Indians within the state, says the Milwaukee Journal. In other words, allow the state department of public instruction to supervise the education of Indian children, the state board of health to look after health conditions in the Indian communities and the proper authorities to take care of the aged and infirm. The bill introduced by Congressman Cooper is similar to bills asking the same plan for California and Minnesota. These three states have taken a real interest in the Indian problem.

The bill is first of all a start at decentralization in the control of the Indian, and as such no doubt will be fought by the Indian bureau. Over 5,000 agents and employes now administer the Indian work in the States; fewer will be needed if these bills pass. Second, the bill is in line with the fact that Indians within Wisconsin are now citizens of the state, and may very properly have the assistance of the state government. Third, the bill is recognition that state health, educational and welfare agencies are closer to the field of operations than Washington; also, that such public questions as the health of the Indians on government lands are matters that concern surrounding communities. If an epidemic breaks out on a reservation, the surrounding state-controlled communities certainly are interested.

Of course there must be assurance that the state will use this federal money wisely. Just giving Madison departments more

cash to spend might not do the Indian much good. Such assurance is contained in the bill, which provides that the state departments must accept responsibility and submit detailed budgets to the secretary of the interior. The secretary, through acceptance or modification of these budgets, directs the expenditure.

The trial period is for three years, at the end of which a survey will be made to determine the effect on Indian administration. Certainly the plan offers more than the Indian is now getting and it should be tried.

—*Milwaukee Journal*.

ARCHEOLOGICAL NOTES

Meetings

The postponed Annual Meeting of the Wisconsin Archeological Society was held at the Milwaukee Public Museum on Monday evening, April 19, President Dr. E. J. W. Notz occupying the chair. The annual reports of Secretary C. E. Brown and of Treasurer G. M. Thorne were presented and approved.

On the motion of Mr. J. C. McKern the chair appointed a nominating committee consisting of the Messrs. Dr. S. A. Barrett, R. L. Maas and Vetal Winn to nominate officers for the ensuing year. The following officers were nominated and unanimously elected:

President—Mr. George A. West.

Vice-presidents—Messrs. W. H. Vogel, Huron H. Smith, C. G. Schoewe, Mrs. E. H. Van Ostrand, W. W. Gilman, A. T. Newman and Dr. A. L. Kastner.

Directors—Dr. S. A. Barrett, Dr. F. C. Rogers, Dr. E. J. W. Notz, A. P. Kannenberg, E. F. Richter, Mrs. A. E. Koerner, Vetal Winn, L. R. Whitney, Dr. H. L. Tilsner and J. C. McKern.

Treasurer—G. M. Thorne.

Secretary—Charles E. Brown.

Mr. West made a brief address thanking the society for the honor conferred upon him and congratulating retiring president Dr. Notz upon the success of his administration. To this address Dr. Notz made a response.

Mr. Huron H. Smith then delivered an illustrated lecture on "Among the Wisconsin Potawatomi" which was greatly appreciated by the seventy members and visitors present.

At the close of the meeting an exhibit of specimens from Cliff Dwellings in the Grand Canyon region was made by Mr. West.

At the meeting of the Executive Board, held before the Annual meeting, the directors elected to membership in the Society, Mr. E. W. Hamilton, Madison; Mr. Frank E. Ellis, Maquoketa, Iowa; Mr. Charles A. Kirchner and Mr. Rosco Stoll, Fountain City; Mr. W. Bradley Tyrrell, Delevan, and Mr. T. M. Lewis, Watertown.

Mr. Alfred C. Burrill, director of the Missouri Resources Museum, Jefferson City, and Prof. F. S. Hyer, president of the State Normal School, Whitewater, were elected honorary members. The death of Mr. Willis P. Clarke, Milton, a charter member of the Society was announced.

No meeting of the Wisconsin Archeological Society was held during the month of May. President George A. West presided at the meeting held at the Milwaukee Public Museum on Wednesday evening, June 16. About sixty members and visitors were in attendance. Dr. S. A. Barrett gave an interesting address on "Some Features of the New York Meeting of the American Museums Association", and Mr. Charles E. Brown an account of "The Central Section, American Anthropological Association Meeting at Columbus, Ohio." Both addresses were discussed by the members present. Exhibits of specimens were made by Mr. A. P. Cloos, Mr. E. F. Richter and other members.

At the Executive Board meeting, held earlier in the evening, Dr. G. W. Kuhm, Milwaukee and Mr. Don S. Howland, Madison, were elected members of the Society.

The personnel of the standing committees appointed by President West for the year 1926-27 appears on one of the front pages of this issue of the Wisconsin Archeologist.

Mr. Arthur P. Kennerberg and Mr. George Overton have investigated the site of the Robert Grignon trading post at Butte des Morts with interesting results in Indian trade implements and ornaments and other specimens.

Mr. Alonzo Pond, engaged for a year past in conducting archeological investigations for the Logan Museum of Beloit in Algeria and France, has returned to Wisconsin. Mr. Pond was as successful in his field work as he has been in his past undertakings for the museum.

Mound Preservation

At a meeting held on their camp ground on the shore of Green Lake on Sunday afternoon, July 11, the Madison Boy Scouts unveiled a metal tablet on a group of Indian burial mounds located there. Mr. Geo. L. Pasco of Ripon spoke to the Scouts on July 16.

The city of Rice Lake is preserving on its tourist camp ground a group of Indian mounds on what was formerly the Stout property.

Plans are in progress for the erection of a tablet on a panther (water spirit) effigy mound located on the Madison Y. M. C. A. camp ground at Morris Park, on the north shore of Lake Mendota, at Madison.

Publications

"An Analytical History of the Seneca Indians", by Arthur C. Parker, has been published by Lewis H. Morgan Chapter of The New York State Archeological Association, Rochester, New York. In the foreword of this valuable contribution to Iroquois history, which is dedicated "to Alvin H. Dewey, for ten years the untiring president of Lewis Morgan Chapter and of the State Association", the author says: "For many years there has been an insistent demand for a short history of the Seneca Indians, the former lords of Genesee County. In general, Morgan's "League of the Iroquois" has been the principal guide, but its pages embrace more of ethnology than of history. Most of the shorter sketches that have appeared have failed to set forth the underlying causes of tribal action and to give the phenomena of their folkways. There is, therefore, a need to be met and satisfied. This we have attempted in this resume." The Wisconsin Archeological Society is pleased to see its friend, Mr. Alvin H. Dewey, honored by the dedication of this notable contribution to him, and offers its congratulations to him on his long-continued devoted services to archeological research in his home state.

The Wyoming Historical and Geological Society, Wilkes-Barre, Pa., has issued a new publication, "Aboriginal Rock Shelters and Other Archeological Observations on the Wyoming Valley and Vicinity", by Max Schrabisch. "The investigations, made under the auspices of the Society, by a noted archeologist and specialist in rock shelter research, form a real contribution to American archaeology because the lack of systematic research in Pennsylvania prehistory has made a recognizable break in this important study. This report summarizes the results of earlier work; local information; and the findings of the author's investigations during the summers of 1923 and 1924." The discussions of rock shelters are comprehensive. Other subjects touched upon are: tribal culture, trails, kinds and sources of material."

The National Research Council, Division of Anthropology and Psychology, has issued a mimeographed report of the Annual Meeting of the Division held at Washington, April 23 and 24.

The University of California has issued a publication by Dr. A. L. Kroeber on "The Uhle Pottery Collections from Chancay." "Dr. Max Uhle's collections at Chancay, Peru, were made for the University of California in 1904. They comprise 701 catalogue entries. Of these, 531 are pottery vessels, mostly complete. These are here described and interpreted according to the plan followed in the monographs previously issued in this series on the pottery collections from Chincha, Ica, Ancon, Moche and Supe." This publication is illustrated with eleven plates and a number of text figures.

The University has also issued a monograph on "Miwok Cults", by Edward W. Gifford. "This preliminary paper concerns, except for the section on the Southern Miwok, the Central and Northern Miwok of the Sierra Nevada region of Central California. It is based upon information collected during several seasons' field work beginning in 1913."

"Official Reports on the Towns of Tequizistlan, Tepechpan, Alcolman and San Juan Teotihuacan sent by Francisco de Castaneda to His Majesty, Philip II, and the Council of the Indies, in 1850" translated and edited by Zelia Nuttall, has been published by the Peabody Museum of American Archaeology and Ethnology, Harvard University. The fifty-ninth Report of the Peabody Museum has also appeared.

The Report of the United States National Museum, 1925, has been printed and distributed. Additions to the division of American archaeology include a series of implements and ornaments of copper, bone, shell and stone, collected by Gerard Fowke from mounds near Town Creek, Ala., a series of specimens collected by Dr. J. Walter Fewkes on Weeden's Island, near St. Petersburg, Fla.; a collection of stone implements, shell vessels and shell and copper ornaments excavated by Mr. Fowke from mounds on the site of the Wilson Dam, Muscle Shoals, and a collection of earthenware vessels, bone and shell ornaments and similar specimens collected by J. C. Clarke, from Pueblo ruins, 15 miles southeast of Flagstaff, Arizona.

The Report of the Department of Mines of the Dominion of Canada for the fiscal year ending March 31, 1925, contains a report of the accessions, field and office research work of the Anthropological Division.

During this past year Harlan I. Smith has been at work among the Bella Coola, and C. M. Barbeau among the Gitksan and Diamond Jenness among the Carrier and Sikani Indians of British Columbia. F. W. Waugh has been engaged with the Montagnais Indians of the lower St. Lawrence.

The American Anthropological Association has published in its Memoirs "A Pueblo Indian Journal, 1920-21", by Elsie Clews Parson.

Museums and Miscellaneous

American Museums are acquiring for the public many beautiful archaeological, historical, geological and scenic shrines. "Museum Service" states that the State Museum of New York owns Squaw Island and Canandaigua Lake; the Saratoga Cryptozoon Ledge, Chittenango Falls, Green Lake, Stark's Knob and other important locations. Here is an opportunity for public spirited citizens of Wisconsin to add similar shrines to the possessions of the State Conservation Commission, the Wisconsin Archeological Society and the Milwaukee Public Museum.

In his presidential address, delivered at the opening of the meeting of the Central Section of the American Anthropological Associa-

tion, held at Columbus, Ohio, on May 13 and 14, Charles E. Brown stressed particularly the great importance of increasing by every means the collections of American anthropological materials in state, municipal and college museums, the founding of additional museums in cities in the Middle West, the need of securing anthropological research funds for the state societies and educational institutions and for the Section itself, and the greater utilization of American Indian materials in decorative and industrial art, literature and general educational work.

The Municipal Museum, Rochester, New York, issued on June 15 the first number of a new publication, "Museum Service." Among other interesting items this issue contains accounts of the bequests recently received by several museums. By the terms of the will of Wood Fosdick, who died on April 6, the American Museum of Natural History received one million dollars. The recent gift of one million dollars to Yale University makes possible the erection of the first half of the new museum. The city of Buffalo has recently bonded itself for \$1,250,000 to build a new museum. The new museum building at Newark, New Jersey, costing \$700,000, was donated by Mr. Louis Bamberger. More than \$500,000 has recently been raised for the building of the Columbus Gallery of Fine Arts. The engineers of America are establishing an engineering museum at Washington. Their plan calls for \$10,000,000. Rochester is asking for bequests for a new museum building.

"A map of Ohio showing Scenic and Historic Features" with an index arranged by counties and points of interest, compiled by P. H. Elwood, Jr., professor of landscape architecture, Ohio State University, is published by the Ohio Archeological and Historical Society. This guide to points of historical and scenic interest in Ohio is the best state publication of this nature which has yet come to our attention.

Dr. Oscar Lotz and sisters have presented to the State Historical Museum a miscellaneous collection of archeological and historical materials made by their father, the late Dr. Louis Lotz of Milwaukee, a former active member of the Wisconsin Archeological Society. Among the archeological specimens are a quite large number of flint implements, stone axes and celts, a stone spud, and a number of native copper implements, all from sites chiefly in Milwaukee, Washington and Waukesha counties.

At the commencement of the University of Wisconsin, held in the Camp Randall stadium on Monday, June 21, Miss Louise P. Kellogg, research associate of the State Historical Society, was honored by the University with the honorary degree of Doctor of Letters, being probably the first woman to have this degree conferred upon her by the University.

A distinguished guest at Madison during parts of the months of June and July was Dr. H. H. Jungboll, director of the Ryke Ethnographic Museum, Leyden, Holland. While in Wisconsin Dr. Jungboll visited the State Historical Museum and the Milwaukee Public Museum for the purpose of arranging for exchanges of archeological and ethnological material. At Madison he visited some of the local Indian mound groups and sites.

Edward A. Boerner, a 1926 graduate of the University of Wisconsin, prepared as his thesis subject in the Applied Arts course a miniature model of a "Dwelling Group of Wisconsin Indians." This well constructed group he has presented to the State Historical Museum.

The Columbia River Historical Expedition, planned by the Great Northern Railway, left Chicago on a special train on July 15 on a twelve day excursion to Oregon. Among the many points of historical and scenic interest to be visited were Fort Union, Fort Benton, Bonner's Ferry, Mt. Ranier and Glacier National Park. Mr. Willoughby, Jr., was in charge of a museum car included in the train.

The Wisconsin Archeologist

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September, 1926
NEW SERIES

No. 4

ROCK LAKE



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

Wisconsin Archeological Society

Milwaukee, Ws.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room, in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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EXCAVATING MOUND IN EVERSON WOODS

The Wisconsin Archeologist

Published Quarterly by the Wisconsin Archeological Society

Vol. 5

MADISON, WIS., SEPTEMBER, 1926
New Series

No. 4

ROCK LAKE

Charles E. Brown

PREFATORY

"Rock lake is situated in Lake Mills township, Jefferson county, and lies about midway between the lakes of the Yahara basin and those of the Oconomowoc-Waukesha district. It occupies a depression in the ground moraine."

"While the shores are rather high at the northwest corner of the lake, yet they reach a maximum elevation of only about 30 m. (100 ft.) above the water and for the most part they do not exceed 10 m. (33 to 65 ft.) in height."

There is a broad expanse of swamp at the south end; in fact, nearly all of that portion of the lake which lies south of the railroad is essentially a swamp at low stages of the water in summer. There is also a narrow belt of swampy shore on the west side, another at the north end, and still another south of the mill pond at the outlet.

"The lake is fairly regular in outline and somewhat pear-shaped, the north end being the narrower. The main axis lies in a north and south direction. A dam in the outlet, a short distance below the lake, raises the lake level about 2 m. (6.5 ft.). This increased height has added materially to the size of the lake. It is largely responsible for the portion south of the railroad, for the mill pond, and also for a rather large, shallow area along the west side. In summer these shallow areas support a dense growth of the larger aquatic plants.

"The lake receives the waters of two small streams. One enters the south end of the lake and it drains Mud lake and the large swamps lying south of the middle of the west side. The outlet, Rock creek, leaves the lake a little south of the middle of the east side and flows northeastward to the Crawfish river.

The latter stream is a tributary of Rock river whose waters flow into the Mississippi river.'*"

The length of Rock lake is given as nearly 3 miles and its greatest width as about $1\frac{3}{8}$ miles. Its maximum depth is 20.4 meters and its mean depth 6.1 meters.

The west shore of the lake from its southern end northward to just beyond the C. & N. W. R. R. crossing is occupied by a heavy stand of tamarack. From this point northward the shore line is low and is occupied by pastures and farm lands with a large forest of hardwood trees at its northern end. This forest also extends over the northern end and around it along the east shore as far south as the railroad crossing. South of the railroad crossing is the fine forest on the Everson farm, extending southward for nearly one-fourth mile to near the Catholic cemetery. From just north of the cemetery to Mud lake cultivated lands occupy the lake shore. Back of the lake shore in the woods on this side of the lake from its north end southward to the Everson woods (which contain here and there picturesque groups of young red cedar trees) are many pot holes and depressions.

South of the railroad and opposite the Everson woods the marsh is very extensive, a mile or more across, the nearest open water area being at this place from 500 to 700 feet from shore. Viewed from this shore the great tamarack forest on the west shore forms a most picturesque background against the skyline.

"The name of Rock lake is said to be derived from the unusual number of rocks which line its shores, in many places several feet in height. It covers an area of not quite 1700 acres."*

John Farmer's "map of the Territories of Michigan and Wisconsin," published in 1830, gives the Winnebago name of Rock Lake as "Tay-mah-a-hah-rah." It indicates the location of an Indian village, "Cosheonong," at its foot. Mr. Oliver Le Mere informs the writer that the name "Tay-ma-ha-rah" signifies "muddy lake."

If Rock lake ever deserved this name it certainly does not deserve it today, nor has for years past. It is a large and beautiful sheet of water north of the railroad crossing and not

*The Inland Lakes of Wisconsin, 34-35.

*Hist. Jefferson Co., 335.

unattractive though marshy south of it. It has not received the public attention which it deserves, possibly because of its location midway between the beautiful Waukesha and Madison lakes.

Elisha Keyes, who settled at Lake Mills in 1837, says of the Winnebago of Rock lake and Jefferson County, that: "they were a splendid race of men, of fine physical proportions, and impressed one very strongly with the nobility of their race."

"The removal of the local Winnebago was accomplished in 1841 by the arrival of a company of U. S. dragoons who gathered up all the Indians they could find. A large number of Indians were removed although stragglers continued to return."*

It is indeed a pity that so very little of the early Indian history of the Rock and Mud lake region has been recorded.

Mr. Stoughton W. Favill states that the Winnebago who visited Rock Lake during his boyhood came from both Lake Koshkonong and from Portage.

THE MOUND GROUPS

The total number of Indian mounds formerly located on the shores of Rock lake, of which there is a present record, was seventy-two. The greater number of these were included in four groups, three of these being situated on the east and one on the west shore of this lake. The following table shows the number and character of the mounds formerly or now in these groups, and their character.

	Conical	Oval	Linear	Effigy	Total
Phillips-Ferry Group -----	11	2	10	3	26
Sandy Beach Group-----	11		4	1	16
Everson Woods Group -----	4	2	5	3	14
Outlet Effigy -----				1	1
Tyranena Mounds -----	6				6
West Shore Mounds -----	2				2
Crossing Group -----	2		5		7
	30	4	24	8	72

Four of the eight effigy mounds are representations of the common panther (water spirit) type of animal-shaped mounds. One effigy, long since destroyed, is reported to have been of the turtle type. One, Mr. Skavlem designates as of the lynx type,

*11 Wis. Hist. Colls., 427, 431.

and one is probably a representation of a bird. All of these are described elsewhere in this report.

The conical mounds in the Rock lake groups are all of small size, from 12 to 30 feet in diameter. The largest, in the Everson Woods group, is 35 feet in diameter. An interesting cluster of ten of these is to be seen in the Sandy Beach group. They have recently been dug into by vandals of the relic hunting class but can be restored by the owner of the property.

The linear mounds on the shores of Rock lake measure from 50 to 135 feet in length, the longest of these being located near the northern end of the "procession" of mounds in the Everson Woods group. In the Crossing group, on the west shore of the lake, all but one of the linear earthworks are of the straight, parallel-sided form. This single stray is a tapering linear. In the Everson Woods group all of the five linear mounds are of the tapering form. One of the linears in the Phillips-Ferry group is of this form, and one in the Sandy Beach group.

Of the oval mounds the two in the Phillips-Ferry group measure 40x12 and 40x13 feet, and one in the Everson Woods group 33½x22 feet. The other oval mound in the latter group has been under cultivation and its exact former size cannot now be determined.

Lake Mills is one of a number of cities in southern Wisconsin which have not yet undertaken to permanently preserve or mark any of the interesting ancient Indian earthworks in their localities. It is important that this should now be done, both because of their historical and educational value to residents of the city and vicinity, and because of their attraction and interest to the tourist. The owners of the lands upon which these interesting records of early aboriginal occupation are located should do their utmost to protect those which remain from further mutilation by relic hunters. These monuments are an educational and financial asset which Lake Mills can not afford to longer neglect.

ROCK LAKE TRAILS

Several Indian trails passed through the Rock Lake region. Their courses are shown on some of the early maps of Wisconsin Territory. The most important of these was the very old trail from the Indian villages at Milwaukee, on the Lake Michi-

gan shore, to the Mississippi river. This trail, coming from the region of the Waukesha County lakes, crossed the Crawfish river (designated as the Beaver Dam river on some early maps) at Aztalan, where there was a Winnebago village, and ran in a southwesterly direction to the present location of Lake Mills, on the east shore of Rock lake. It passed around the north shore of the lake and westward through present Deerfield and Cottage Grove to the Madison lakes. This was the trail over which Black Hawk and his Sauk warriors traveled in July, 1832, during the Black Hawk war, in their retreat from the rapids of the Rock to the Wisconsin river.

At the north shore of Rock lake two trails, one from Sun Prairie to the northwest and one from Waterloo, to the north, connected with the Milwaukee-Mississippi River trail. A trail from Lake Ripley and from the Winnebago villages at Lake Koshkonong reached the Winnebago village at the southern end of Rock lake and passed up its eastern shore to the outlet of the lake at present Lake Mills, where it connected with the Milwaukee-Mississippi trail.

Doubtless there were other trails centering in the Rock Lake region but the courses of these are not preserved on the State Land Office maps, or early published maps.

Mr. Stoughton W. Faville mentions that in his boyhood an Indian arrived at his father's home late at night, who had just come over the trail from the Mississippi river to Rock lake. He had started early on that morning and made the journey of about 110 miles from the river in a single day.

COLLECTIONS

Best known of the collectors of archeological specimens in the Rock Lake region have been Robert P. Ferry, Stoughton W. Favill, Hubert M. Jaycox and the late Frank B. Fargo. To all of these devoted students of Wisconsin archeological history the writer is indebted for assistance given at various times during the past twenty or more years during researches conducted by the Wisconsin Archeological Society in this and adjoining regions. All are or were at one time among its members.

Mr. Jaycox did most of his collecting in the Crawfish River region near Aztalan, but he also gathered some specimens at Rock lake. His large and interesting collection is at present

deposited in the State Normal school at Whitewater. Mr. Fargo, who was a resident of Lake Mills, collected many specimens here. His collection was sold some years before his death. A portion of it is in the State Historical Museum. Both Mr. Favill and Mr. Ferry have interesting collections. Mr. Chas. Greenwood of Lake Mills is another local collector.

Lake Mills, like many another Wisconsin city and village, should have a public museum where specimens identified with local archeology and history could be preserved.

INDIAN REMAINS AND HISTORY

ROCK CREEK SITES

Rock creek, the outlet of Rock lake, leaves the lake opposite the business section of the village of Lake Mills and flows into the mill pond, a small marshy area whose banks are occupied by the backyards of residences on its northern, with a woodland grove on its southern side and on its eastern by store buildings. This creek is about fifty feet wide at its mouth. In an examination made by the writer several years ago flint chips and spalls and hearthstones were found in some of the backyards mentioned, the presence of these clearly indicating the former location of an Indian camp site here.

In 1904 Mr. Ezra H. Stiles, a former resident of the Lake Mills region and a member of the Wisconsin Archeological Society, reported the early location of an Indian turtle effigy on the present site of Main Street in Lake Mills. This was probably located on the Smith place just south of the mill. Mr. Stoughton W. Favill has in his collection a grooved granite hammer collected at the outlet of Rock lake.

On the south side of Rock creek, on the old Ringer farm, east of Main street, Mr. Robert P. Ferry located an Indian camp site where in former years he collected a number of flint implements. A path or trail formerly lead from the shore of Rock lake through a woodlot to the Ferry cottage, then across Main street and in a northeasterly direction to the above mentioned site.

On the old Fargo farm on the north side of the creek (SW. $\frac{1}{4}$ Sec. 12) fireplace stones and flint rejectage were also found. Rock creek flows in a northeasterly direction to the Crawfish

river. Camp sites are also located along its banks between Lake Mills and the Crawfish. Mr. Stoughton W. Favill states that many stone implements were formerly found along its course especially in the vicinity of Hooper's mill. The Winnebago camped at different places along this creek in early days of settlement and later. On the formerly wooded hills along its course are a number of attractive sites which the natives must have appreciated. Hearthstones are found on some of these sites which are on a former trail leading to the Crawfish river.

PHILLIPS-FERRY GROUP

(SE. $\frac{1}{4}$ Fract. Sec. 14)

This group of mounds, twenty-six in number, is located on the east shore of Rock lake. It is the best known of the Rock lake groups. The mounds extend in a long line along the crest of the high abrupt shore line of the lake for a distance of about 700 feet, 16 mounds being massed at its southern end. Of the twenty-six mounds in the group when Mr. H. L. Skavlem made a survey of it for the Wisconsin Archeological Society, in August 14, 1916, 10 were linear in form, 13 circular and oval, and 3 effigies. A narrow grassy gully separates the four linear mounds at the northern end from the remainder of the group.

The dimensions of the linear mounds are given by Mr. Skavlem as follows:—

- No. 1. 54x 9 feet, 16 inches high.
- No. 2. 90x12 feet, 2 feet high
- No. 3. 90x 9 feet, 16 inches high.
- No. 4. 110x12 feet, 4 feet high.
- No. 5. 90x10 feet, 2 feet high.
- No. 6. 75x10 feet, 16 in. high, tapering in form.
- No. 7. 55x10 feet, 12 in. high.
- No. 8. 75x12 feet, 16 in. high
- No. 9. 66x12 feet, 16 in. high.
- No. 10. 75x12 feet, nearly 3 feet high.

The conical and oval mounds

- No. 1. 15 feet diam., 16 in. high.
- No. 2. 40x13 feet, outline indistinct (oval).
- No. 3. 18 ft. diam., 18 in. high.
- No. 4. 16 feet diam., 18 in. high.
- No. 5. 16 feet diam., 18 in. high.
- No. 6. 16 feet diam., 14 in. high.
- No. 7. 10 feet diam., 12 in. high.
- No. 8. 16 feet diam., 14 in. high.
- No. 9. 25 feet diam., 5 ft. high.
- No. 10. 12 feet diam., 2 ft. high.

- No. 11. 10 feet diam., 1 ft. high.
- No. 12. 40x12 feet, 18 in. high (oval).
- No. 13. 12 feet diam., 15 in. high.

The effigies

- No. 1. Water spirit or panther, 90x10, 2 ft. high.
- No. 2. Lynx type 60x17, 5 ft. high.
- No. 3. Water spirit or panther, 120x24, 5 ft. high.

The entire group is on wooded land and the southern portion is densely covered with cedars and underbrush. South of the mounds there is a small area of low and swampy land. Some of the mounds are in a good and others in a poor state of preservation. A few have been excavated. The results of explorations of some of the latter have shown bone burials and ash beds. Evidences of a flint workshop site have been found among the mounds at the southern end of the group. Flint arrow and spearpoints have been collected from the cultivated lands adjoining the mounds on the east. In one of the linear mounds, excavated about 20 years ago, human bones and a broken pottery vessel are reported to have been found.

Dr. Stephen D. Peet mentions that "many skeletons were taken from mounds at Rock Lake and forwarded to the U. S. Army Medical Museum." (Preh. Am., V. 2, p. 227.) Some of these were from mounds in this group.

The Winnebago Indians camped on these lands when the first white settlers came to Lake Mills. Here they also planted corn the hills being in evidence for many years.

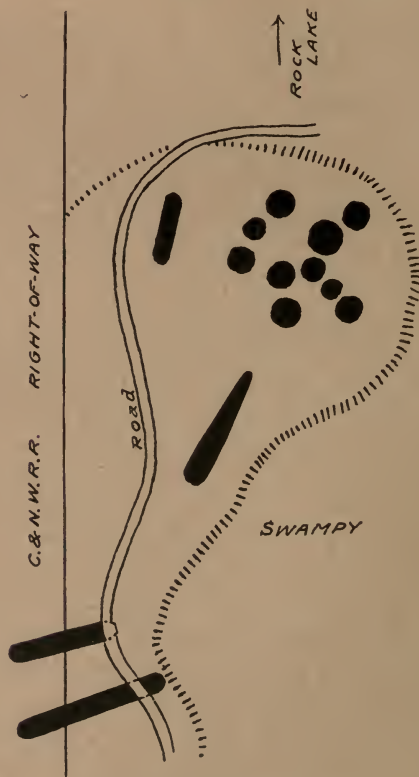
This corn field on the Phillips (now Ferry) farm was later used as a race track and is now again under cultivation. Its western edge was about one hundred feet east of the lake bank where a small ravine enters it, near the Manierre cottage. On the higher land of the old Bishop farm, now a part of the Phillips farm, Mr. Robert P. Ferry, located a small camp site and flint workshop. He has in his collection flint and quartzite points, blanks and potsherds collected on the east shore of the lake. A grinding stone was found by him among the roots of a tree on the lake shore south of the Fish cottage, on the Phillips farm. A copper spearpoint was found near the Manierre cottage.

A rough survey of this mound group was also made by C. E. Brown with the assistance of F. P. Mansfield and E. F. Richter, on August 19, 1907.

SANDY BEACH GROUP

(NE. $\frac{1}{4}$ Fract. Sec. 23)

A group of sixteen mounds was located on the former Knickerbocker Ice Co. property, now the Sandy Beach resort, on the shore of Rock lake, a short distance west of the Lake Mills railroad depot. Most of them were on the crest of a hill overlooking the lake shore, and were a short distance north of the



SANDY BEACH GROUP

Figure 2

C. & N. W. R. R. right-of-way, which crosses Rock lake near this place. There are on the grassy top of the rounded extremity of this hill, at a height of twenty or more feet above the shore of the lake, an interesting, closely-grouped cluster of ten small conical mounds, the smallest of which is only 12 and the largest 30 feet in diameter. Two other mounds of this cluster were 15, four 18,

and three 20 feet in diameter. All are low, constructed of black sandy soil, and from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet in height at their middles. Those nearest the end of the hill are surrounded by cedar trees. The top of this hill is at least 30 feet above the fine sandy beach of the lake. Its base is at least 150 feet from the water's edge.

A short distance south of these mounds, near the base of the southern hillside slope, is a short, low, straight linear mound, measuring 50 feet in length and 12 feet wide. A portion of the eastern end of this mound has recently been removed in grading away the southern edge of the hill. About fifty feet east of the conical mounds, on the slope, was another linear, this one being tapering in form 90 feet long and 15 to 18 feet wide. About 125 feet beyond this mound was a straight linear 80 feet in length and about 15 feet wide. Forty-five feet beyond it and lying nearly parallel was a similar earthwork 125 feet long and of about the same width as its neighbor. The northern extremities of both of these mounds were cut into by the road to the former ice houses on the lake shore. A considerable part of the other ends of both mounds (about half of one and one-third of the other) extended into the adjoining railroad right-of-way. Both were low structures. Both of these mounds have recently been obliterated in the "improvement" of this property.

Some distance east of these mounds, on the north side of the road from the Lake Mills railroad station to the Sandy Beach resort, there is a solitary effigy mound of the well-known panther or water spirit form. This rather fine mound, which Mr. Ferry informs the writer is still in existence, is 84 feet long. Its body measures 24 and its long, tapering tail 60 feet in length. Its erect head is 10 feet and its front and rear limbs 15 feet in length.

North of the mounds of this group there is a low swampy area of land which separates these mounds from the Ferry group. A portion of this at Sandy Beach has now been drained and converted into solid ground.

On October 12, 1910, when Charles E. Brown made a survey of the Sandy Beach mounds, nearly all of the conical or round mounds located here had already been excavated by relic hunters and others. Some of this digging had occurred years before as the holes in the tops of the mounds had again become partly filled with soil. It was then and since learned that sev-

eral of the mounds had contained human bones (bone re-burials and other burials) and small quantities of charcoal and ashes.

As previously stated the recent improvement of this property by the Sandy Beach resort has destroyed some of the mounds of this group. Mr. Robert P. Ferry reported in October 1923 that in the course of grading down the gravel hill upon which the mounds are three Indian burials were disinterred. One of these was a full length burial, the exact nature of the other two was uncertain. The bones of these were in a poor condition. No implments were found, probably because the inspection was not close.

Mr. Hubert M. Jaycox states that he excavated a mound located on the present Sandy Beach resort property. It was near the road leading to the ice house on the beach. This mound was constructed of gravelly soil and contained human bones. In one mound formerly located near the present railroad trestle, and levelled during grading operations four or five skulls were found.

It is very desirable, because of the public character of this resort, that a descriptive tablet should be erected on the panther effigy in this group, and on some of the other remaining mounds.

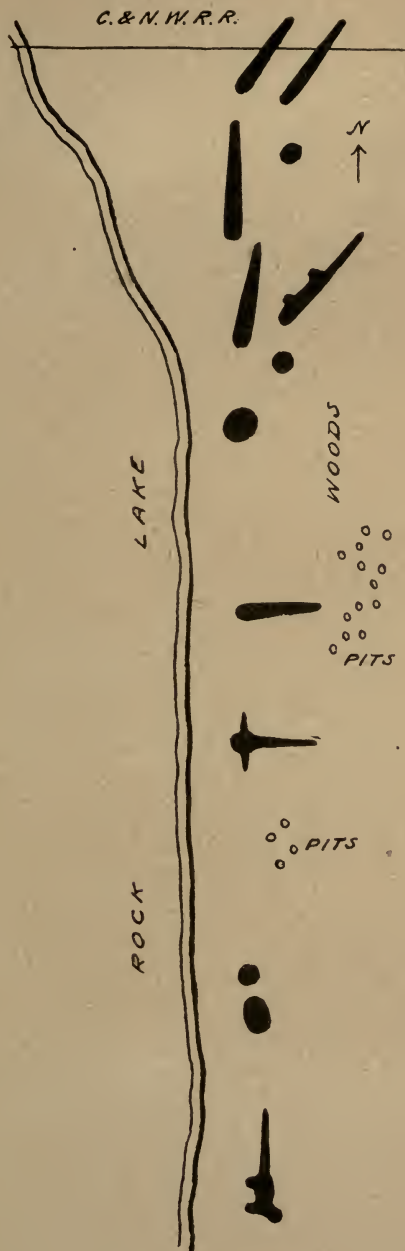
On a small knoll between the base of the mound hill and the bathing pavilion a flint chipping site was located. Sod covers the site to-day but flint chips and fragments continue to wash out of bare places on the knoll and in the road.

EVERSON GROUP

(NE. $\frac{1}{4}$ Fract. Sec. 23)

On the William Everson farm, south of the C. & N. W. R. R. right-of-way, a stragglng line of mounds extends through a fine tract of woodland along the marshy shoreline at the foot of Rock lake. There are in this group fourteen mounds five being tapering linear, four conical, two oval and three effigy mounds.

At the northern end of this "procession" of mounds are two tapering linear mounds. About half of the length of each of these extends into the right-of-way. These earthworks, which lie parallel to each other and are about 34 feet apart, measure 129 and 104 $\frac{1}{2}$ feet in length, and are 18 and 17 feet wide at their larger extremities and about 2 $\frac{1}{2}$ feet high. Within 50 feet of this end of one of these linears is a conical mound 17



EVERSON WOODS GROUP
Figure 3

feet in diameter and only about one foot high. Fifteen feet beyond the same end of the other linear is another tapering linear earthwork 135 feet long and 19 feet wide at its rounded extremity. Its height is about the same as that of the other linears. Opposite this end of this last mound (20 feet from it) is the tapering end of a fourth linear, 122 feet long and 13 feet wide at its rounded end. Its height is about 18 inches at its highest part. Opposite this last mound (east of it) is an effigy mound having a long tapering body and short rounded limbs on its one side. This mound is 124 feet long and its limbs each 15 feet long. It is 2 feet high.

Just beyond the end of the last linear mentioned are two conical mounds. One, $51\frac{1}{2}$ feet southeast of it, is 26 feet in diameter and 3 feet high, and the other, 51 feet south of it, 38 feet in diameter and $3\frac{1}{2}$ feet high.

All of these mounds are from 36 to 200 feet from the margin of the lake marsh.

At a distance of 180 feet south of the last conical mound there is a fifth tapering linear. This mound has a general east and west instead of a north and south direction like the other linears. Its rounded end is towards the marsh edge. Its length is 100 feet and its width at its rounded extremity 21 feet. It is only $1\frac{1}{2}$ feet high. A gravel pit lies between it and the marsh edge.

A short distance beyond this mound, its head a few feet from the marsh shore, is an effigy, probably intended to represent a bird. Its body is somewhat circular, about 22 by 27 feet in diameter and its long, tapering tail 95 feet long. Projecting on either side of its body are short limbs 21 feet in length. One of these is more definite than the other due to the disturbed condition of the soil. Its body is 3 feet high.

At a distance of 306 feet beyond this mound, in a pasture, is a small conical mound 14 feet in diameter and one foot high. A few feet beyond it is an oval mound having dimensions of $22 \times 33\frac{1}{2}$ feet. It is 35 feet from the edge of the marsh. Sixty-one feet south of this last mound is the end of the tapering tail of a small panther effigy. This tail is 62 feet long and the body of the animal 47 feet long. The distance across its body at its middle is $21\frac{1}{2}$ feet. Its fore limb is 7 and its hind limb $11\frac{1}{2}$ feet long. Its head is rounded, not erect. Its limbs are

37 and 43 feet from the marsh edge. Its height at its highest part is about 2 feet.

The remains of a former oval mound, dimensions about 19x30 feet, are found at a distance of about 270 feet south of the panther effigy. It is on a slope, about 80 feet from the marsh edge. It has been under cultivation. Just beyond this mound is a gravel pit and beyond this the local Catholic cemetery.

MOUND EXPLORATIONS

The small conical and the oval mound near the southern end of the Everson group were excavated by C. E. Brown, R. P. Ferry, T. L. Miller, T. T. Brown and Washburn Lyon, members of the Wisconsin Archeological Society, on November 5, 1921. The conical mound was found to be 10 inches high at its middle, constructed of 8 inches of yellow clay with 2 inches of black loam on its top. Its excavation was thorough but no traces of a human burial or implements were found. Beneath its middle, at a depth of 12 inches in a bed of clay below the natural surface of the soil upon which the mound was constructed, were two deposits of red paint. These were within a short distance of each other.

The oval mound had been dug into at some time in the past by unknown parties, the evidence of this earlier digging being indicated by a shallow depression near its center. This digging had been carried down to the hard undisturbed clay soil beneath the mound. A large rusted tin pan, probably left by these persons, was found buried there.

At a distance of $6\frac{1}{2}$ feet to the north of the center of this earlier excavation, and at a depth of 18 inches below the top of the mound, human remains were found. These consisted of a skull and detached bones, a bone re-burial. The skull lay on its left side facing south, its lower jaw being about 6 inches in front of it, and arm and leg and a few other bones, which lay beneath the latter, extended several inches beyond it. About $21\frac{1}{3}$ inches north of the skull and on about the same level was a small area covered with black charcoal, evidently marking the site of a fire. This deposit was nearly 3 inches deep in places. A pebble hammerstone was found 11 inches west of the skull.

A second human skull, standing upright and facing east was found in the mound, 12 feet from its southern end, its crown

being only 7 inches below the mounds surface. Eleven inches from this skull were two leg bones lying about $11\frac{1}{2}$ inches apart and parallel to each other. A few small fragments of other bones lay between these and the skull. North of these bones were two small fragments of crushed rock tempered pottery, one exhibiting a cord-marked ornamentation. About 15 inches northeast of these and at a depth of 14 inches below the top of the mound, were a rude quartzite point made of purplish (Baraboo?) quartzite and a chip of the same material. This point is $1\frac{3}{4}$ inches long with nearly straight, parallel edges and is three-fourths of an inch wide at its base.

A few scattered flint chips of white, flesh colored and white and salmon colored flint, small pieces of charcoal and a single hearthstone were found scattered throughout the base of the mound. Small areas of ashy soil were also found here. This mound was found to have been constructed throughout of a dark clay loam.

Two conical mounds in the Everson group were explored 26 or 27 years ago by Mr. Hubert M. Jaycox, a well-known Wisconsin collector, and the late Morris C. Long of Kansas City. These tumuli were located in the northern part of the group near the C. & N. W. R. R. track.

One of these mounds was 10 or 12 feet in diameter and 4 or 5 feet in height at its middle. This mound was constructed of surface soil mixed with quantities of ashes and clam shell valves. At its base was an oval case or envelope made of soil and ashes which contained a piece of charred wood. This latter may have been the butt of a pole similar to those once erected in some of the mounds recently excavated by Dr. S. A. Barrett in Aztalan Mound Park. It was broken by Mr. Long during the excavating. Skulls and human bones were found at the sides of this mound.

VILLAGE SITE

The remains of the early Indian village site which must have been located on the Everson farm are almost wholly hidden beneath the soil of the woodland in which most of the mounds are located. An examination was made of the cultivated lands in the rear of the woods and of the fields and pasture as far south as the Catholic cemetery. Only at one or two points,

near the southern end of the farm, were any indications of aboriginal life and industry found.

Indications of a small flint workshop were found on the marsh shore south of the panther mound. A similar flint chipping site was in a small area in the corner of a cultivated field near the woods, a short distance east of the panther mound. Some scattered fire stones were picked up in the pasture. A few test pits dug in the woods and pasture yielded nothing.

In the woods, directly in the rear of the tapering linear mound, near the gravel pit near the center of the Everson group, are a dozen or more shallow pits. These are from 3 to 3½ feet in diameter at the surface and filled with black leaf mold. A number of these pits were examined by Messrs. Brown and Ferry on August 6, 1920. They were found to be somewhat conical in form and from 12 to 26 inches in depth. Others were later excavated by Mr. Brown. Nothing was found in any of them. They were not of sufficient depth to have been used as provision caches. It is more than probable that these are wild rice threshing pits. The wild rice beds in Rock lake were formerly very extensive the local Winnebago gathering the rice in quantity.

A smaller group of caches is located between the bird effigy and the conical and oval mounds excavated. Some of these were also examined.

Mr. William Everson states that in 1847 numbers of Winnebago Indians were camping on the eastern shore of Rock lake and on Mud lake. They were engaged when he visited their camp in spearing fish which were passing down the inlet in immense numbers. Their tepees were covered with buckskin some pieces of which bore painted figures.

In digging gravel in the two gravel pits on his land in recent years three Indian burials were disturbed, one in the small and two in the large gravel pit. Mr. Ferry states that in digging in the large gravel pit at the southern end of the farm an Indian fire pit was exposed, this being a pocket of dark earth filled with burned stones, charcoal and ashes.

WEST SHORE MOUNDS AND SITE

(Secs. 10 and 15)

Mr. Frank B. Fargo, the former well-known Lake Mills collector of archeological specimens, informed Mr. C. E. Brown

(August 7, 1907) that several mounds were formerly located on the west shore of Rock lake. This land has been under cultivation for many years and no traces of these mounds could be located on the occasion of several visits to this shore. A camp or village site was once located here. In Mr. Fargo's collection were many flint points and some flint knives, perforators and scrapers, and stone celts and hammerstones collected by himself and others on this land.

Mr. Jaycox informs the writer that some of the mounds on the West Shore were near the so-called "old castle" on the hill. Some of these were explored and found to contain many human bones.

Small groups of Winnebago also camped on the West Shore of the lake in the fifties and later. Some of these Indians came from the vicinity of Portage on the Wisconsin river, others came from near Lake Koshkonong. They subsisted on fish and small game.

NORTHWEST, NORTH AND NORTHEAST SHORES

(Secs. 10, 3, 2 and 11)

Although examinations were made of these localities in recent years by C. E. Brown, H. L. Skavlem and others no Indian evidences of importance have yet been found on the site of the fine Ferry woodland on the northwest shore of Rock lake, along the north shore about the sites of the cottages, summer resort hotel or adjoining lands, or along the northeast shore from north of the mouth of Rock creek to Tyranena Park. These may be still hidden beneath the sod or obliterated by cottages, residences or other improvements. In early days of settlement small groups of Winnebago are reported to have camped at different times in all of these localities. Mr. Frank P. Mansfield reported to the Wisconsin Archeological Society (August 19, 1907) that some Indian mounds were located in a grove near the Updike resort, now Tyranena Park, but these have never been found. Mr. Hubert M. Jaycox states that there were four or five mounds on this property all of which have been long obliterated. Four of these were on the former gravel hill and one on the present site of the park pavilion. There was also a mound on the Stetson property. This was levelled in preparing the foundation for a cottage. It contained clam shells and a few pieces of broken pottery.

The shores along these parts of the lake were once covered with a fine forest. The lake beaches are fine and sandy.

CROSSING GROUP (S. $\frac{1}{2}$, Fract. Sec. 15)

On the southwest shore of Rock lake there is a rather compact group of seven mounds this being the only group on the west shore. It is located in the northeast corner of the S. W. $\frac{1}{4}$ of Section 15 of Lake Mills Township. The mounds are on a



CROSSING GROUP
Figure 4

knoll surrounded by a few scattered oak trees situated a short distance north of where the C. & N. W. R. R. line from Madison to Milwaukee crosses on a trestle from the west to the east shore of Rock lake.

A survey of this interesting mound group was made by C. E. Brown with the assistance of H. L. Skavlem and A. B. West, on August 21, 1914. It consists of five straight linear and two conical mounds. Its character can best be studied from the illustration of it given in Figure 4.

The dimensions of the mounds are:—

- No. 1. Linear 71 feet long, 12 feet wide.
- No. 2. Linear 90 feet long, 12 feet wide.
- No. 3. Linear 80 feet long, 12 feet wide.
- No. 4. Linear 82 feet long, 10-12 feet wide.
- No. 5. Linear 99½ feet long, 13½ feet wide.
- No. 6. Conical 17 feet diameter, 3½ feet high.
- No. 7. Conical 29 feet diameter, 1 foot high.

The linear mounds are all about 2 feet high. The largest of the two conical mounds is 40 feet from the shore line of the lake, one extremity of the most northerly of the linear mounds is within 100 feet of the lake shore. This grassy knoll is in use as a pasture and the mounds were in good condition at the time the survey of this group was made. Being still intact some public or private effort to permanently preserve and park this mound group should be made.

No evidence of a former camp site has yet been discovered here but it is more than likely that such evidence will come to light in the future.

SANN SITE

(NW. $\frac{1}{4}$, Sec. 22)

Indications of a former camp and workshop site are found in a small cultivated field of the Herman Sann (now the Fred Kambier) farm on the edge of the Rock lake marsh and adjoining the C. & N. W. R. R. right-of-way on the south.

Scattered over the surface of this field when it was visited on August 21, 1914 were numbers of flint and quartzite chips and fragments and burned stones. A thick quartzite blank, a pebble hammerstone and several broken flint points were also found. Mr. Frank B. Fargo formerly had in his collection a stone axe, a sandstone grindstone and a number of flint arrow-points found here.

EAGLE ISLAND SITE

(SW. $\frac{1}{4}$, Sec. 22).

On Eagle Island, in the Rock lake tamarack swamp northeast of Beans lake, on the Mullen and McDonald property, are the interesting Indian remains shown in Figure 5. These consist of a series of shallow trenches arranged in an irregular oval and occupy the greater part of the small island. These trenches are from 3 to 5 feet wide and from a few inches to several feet in depth. In the interior of the enclosure are twenty-four or more circular and oval pits which were probably once in use as storage pits.

This site was visited on August 21, 1914 under the guidance of Robert P. Ferry by a party consisting of C. E. Brown, H. L. Skavlem, A. B. West and Phillips Ferry. The island was then

covered with young timber, mostly oak. A few tree stumps of small diameter (8 to 9 inches) appeared on the sides of some of the pits.

No opportunity has since then offered to revisit and explore this site which can only be reached by a rather difficult trip through the tamarack swamp. The best explanation of the location and use of this structure appears to be that it was the site of an Indian hunter's or rice gatherer's camp protected in some manner by these trenches, possibly with the further addition of a log or brush wall of some kind. The need of a triple row of trenches is not apparent.

A few scattered caches are also found on Fargo island, a similar island in the swamp, west of Eagle island.

Mud Lake

MUD LAKE CAMP SITE

(S. $\frac{1}{2}$ Sec. 23)

Mud lake is a small body of water lying about one-half mile south of Rock lake. It is about one-half mile long and slightly over one-fourth mile wide with shores partly wooded and partly under cultivation.

An Indian camp site is located on a small tract of elevated land of the Draeger farm on the east side of the Lake Mills to Lake Ripley road, east of a little stream (the inlet) connecting Rock and Mud lakes. This field was in clover at the time of the location of this site by C. E. Brown, R. P. Ferry and Dr. S. A. Barrett, on July 16, 1919, but numerous flint chips and other flint rejectage, a hammer stone and fireplace stones were then found. Several recent visits have yielded flint blanks and several arrow points. Mr. Ferry has since found here a very well shaped flint knife $3\frac{1}{2}$ inches in length. This site overlooks the Rock lake and Mud lake marshes. It is really a point and is, on its western side 25 or more feet above the highway. On its south side Mud creek, a narrow ribbon of water, flows into Rock lake marsh.

Indications of camp and workshop sites have also been found in cultivated fields on the east and south shores of Mud lake, in Section 26.

GRAVEL ISLAND SITE

(E. $\frac{1}{2}$ Sec. 22)

A short distance south of Mud Creek the Lake Mills road passes over the western edge of a somewhat elevated tract of land formerly an island in the swamp. This small island is occupied by cultivated fields and partly by a mixed woodland. Along its eastern and southern sides is a stand of tamarack and on its western side the Rock lake marsh. Parts of this farm are very gravelly a gravel pit being located by the side of the road. On a narrow and very stony strip of low land between the road and the marsh flint chips and fireplace stones were found, also on the high cultivated land above it. A few flint points have been found here by others. Doubtless other indications of a former aboriginal camp are hidden elsewhere on this island beneath the sod and the forest floor.

NEWTON LAKE SITE

(NE. $\frac{1}{4}$, Sec. 27)

Separated from it by the Rock lake marsh and a short distance (about $\frac{1}{4}$ mile) southwest of Gravel Island is the southern end of the marsh. Here the Lake Mills road passes through land rising above the marsh and having a series of three prominent knolls. This is on the Carl Lechtenberg farm. This land is also very gravelly in places a large gravel pit being on the west side of the road. The land west of this pit was once covered with an oak forest which the owner has recently cut down and placed under cultivation. Here scattered evidences of Indian occupation were found. On the land immediately above the pit fireplace stones still lay in groups. On the top of a sandy and gravelly eminence on the east side of the road flint chips and fragments were numerous. Mr. Lechtenberg has collected from the land recently plowed some thirty arrow and spearpoints and blanks. These were mostly of light colored flint and very well made. The points are of common stemmed, notched and barbed forms.

A small body of water (a pond) known as Newton, also as Perch lake, occupies the center of an arm of the marsh on the east side of the road. This pond is connected with Mud lake by a small creek flowing toward the east.

The first part of the year was spent in the
 field, and the second part in the
 laboratory. The results of the
 field work are given in the
 following table. The results of the
 laboratory work are given in the
 following table.

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1926



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DELAVAN LAKE



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MARKING OF THE MOUNDS, ASSEMBLY
GROUNDS, DELAVAN LAKE

The Wisconsin Archeologist

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MADISON, WIS., DECEMBER, 1926
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No. 1

DELAVAN LAKE

Charles E. Brown

PREFATORY

Delavan Lake, located in the southwestern part, is the second largest of the two large lakes of Walworth county, its neighbor Lake Geneva (Kish wau ke toe) being the largest.

"Across the country, some three miles northwest (of Lake Geneva), another beautiful lake, then known as Swan Lake (now Delavan), lay in all its native loveliness, quite heavily wooded about its banks but flanked further north by open prairie and groves, or openings, as they are termed, of oaks.

"Deer in large herds fed upon the prairies or browsed in the thick woods. Accounts of bear, and occasionally lynx, and of one catamount, are given by the early settlers. Wolves were for a while a pest. Fur bearing animals, except the muskrat and the mink, not plenty. Otter were occasionally seen at an early day. Fish were abundant, and, in season, water fowl covered the marshes in flocks innumerable. Prairie chickens and other fowl of the grouse species were plenty. A few flocks of wild turkeys were seen by settlers who came in prior to 1838."*

"The surface of the town (Delavan) is generally quite rolling, but a very small portion being quite flat and level. There is considerable marsh land, the greater portion lying in the vicinity of Delavan Lake. These marshes now (1882) constitute great natural hay meadows. Around Delavan Lake was originally a large amount of timber,

*West. Hist. Co., Hist. of Walworth Co., 316.

mainly oak, with some hickory and a little red cedar and poplar. Extending across the town, from the village of Delavan to Elkhorn, is a level tract of land known as Delavan Prairie, while in the western part is Blooming Prairie, which is smaller and of less importance.

"In the southwestern part of the town and extending in a northeasterly direction, and covering principally Sections 22, 28 and 32, is Delavan Lake, a body of water about three miles in length by one and a half miles in width, in which abound the catfish, bass, pike, bullhead, pickerel and most other fish common to western inland lakes. The stream constituting the inlet enters the town on Section 12, and, running in a general southwesterly direction, empties into the lake on Section 22. Nearly opposite this, about one mile west, Delavan Creek, the outlet of the lake, has its source. This stream runs in a westerly direction across Sections 21, 20 and 19, and, crossing the town line into Darien, takes an abrupt turn, and returns again to the town of Delavan, and extends in a northerly direction."*

PHYSIOGRAPHY

"Delavan Lake is long and fairly narrow, its longest axis has a northeast-southwest trend. Its basin lies wholly within a narrow belt that is underlain with Hudson River shales, but these shales are deeply covered with drift material. The symmetry of the bottom is not broken by any shoal areas and the maximum depth of water is found near the middle of the lake. At one point near the middle of the south side there is a maximum slope of 1 to 26, or 38.4 per cent, between 3 m. (10 ft.) and 12 m. (40 ft.). The southwestern end is separated into two parts by a prominent peninsula.

"*Shores.* The shores are not as high as these of Lake Geneva. At the northeast end they do not reach a height of 10 m. (33 ft.) above the water for a considerable distance away from the lake, but they are somewhat steeper toward the southwestern end, rising to a height of about 15 m. (50 ft.) within a relatively short distance of the lake. The shore features have reached a more mature

*Ibid, 657.

stage than those of Lake Geneva, because the banks are composed of gravelly material and have a more moderate slope. But cutting is still a very prominent feature of the shore processes in spite of this maturity. There are several abandoned cliffs, however, at whose bases building is now taking place instead of cutting.

"More or less active cutting prevails along the middle two-thirds of both sides of the lake. In a few places, the cliffs are steep and free from vegetation, but for the most part, the erosion is slow enough to permit the growth of plants. In many places, also, the shore is protected by artificial walls that have been erected along private grounds.

"The more important building processes are found along the ends of the lake. At the northeastern end the shore currents have built a long bar across what was formerly the mouth of the principal affluent, Jackson creek, causing this stream to flow northwestward for a considerable distance parallel to the shore before it enters the lake. A shorter bar has been built out from the northern shore toward the southeast to meet the long bar and the two are now separated only by the channel through which the stream enters the lake. At the northwest corner of the lake similar bars are being built out from both sides of the bay at the outlet. The one on the north side of the bay is being extended in a southwesterly direction toward the point where the outlet stream emerges. But the bar on the south side is being built northward, directly across the bay.

"Cedar Point (on the west shore) is an excellent example of a V-shaped bar which at first enclosed a lagoon, but this lagoon has been converted into a marsh and swamp. It has been built at a point where the shore of the lake makes a rather abrupt change in its direction from almost east to north. The material of which the bar is composed seems to have been derived chiefly from cliffs to the west of the point where cutting is active. Very little cutting is in progress along the shore north of the point.

"At one time active cutting was in progress on both sides of the peninsula at the southwest end of the lake; but modifications in the shoreline caused the cliffs to be

abandoned and building processes are now taking place along their fronts. On the north side of the peninsula a spit is being built across the bay and it now covers about half the distance. A large portion of this spit is now above the low water level. On the south side the conditions are such that a large flat about 100 m. (328 ft.) wide has been built instead of a spit. A portion of the bay on the north side of the peninsula is being cut off by a long spit which is being extended from the mainland in a southwesterly direction.

"On the south side of the lake, toward the southwest end, two small spits have been built out obliquely from the shore in front of a small bay. This bay receives the waters of a small stream and the oblique position of the spits is doubtless due to the interaction of the current of the stream and the currents of the lake.

"Aquatic vegetation plays a very important rôle in shore building in Delavan lake. The shallower, protected portions of the lake support luxuriant growths of the large plants and the debris resulting from these growths is a very important factor in converting such areas into swamp. The best examples of such encroachments are found in the bay at the outlet and in the two bays at the southern end of the lake.

"Jackson creek is the principal affluent of Delavan lake and Turtle creek is the outlet. Both of these streams are located at the northeast end of the lake. Turtle creek is a tributary of the Rock river."*

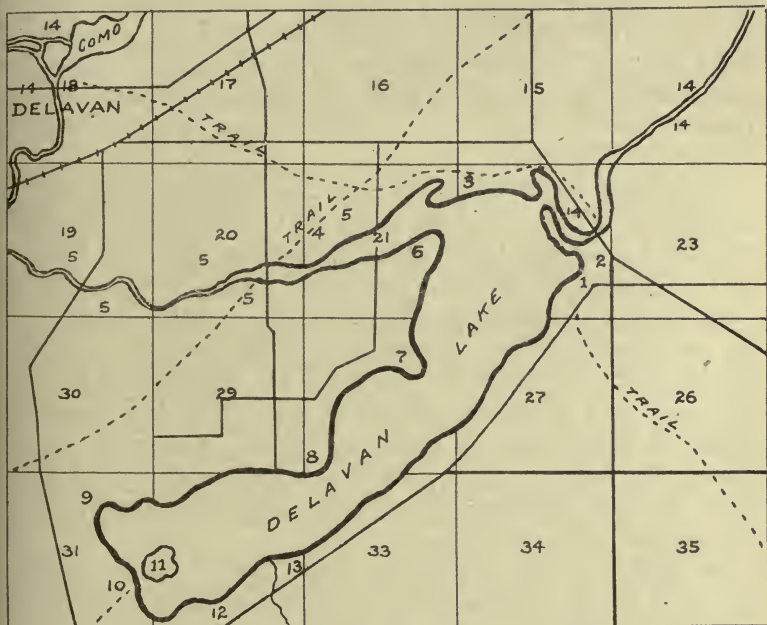
INDIAN HISTORY

The name of Delavan was given to the township and lake by early settlers of this region in honor of E. C. Delavan, a prominent temperance orator of Albany, New York.

The lake lies within a large area in southeastern Wisconsin between Lake Michigan and the Rock River ceded to the Government by the united nation of Chippewa, Ottawa and Potawatomi, at Chicago, September 26, 1833.

*Inland Lakes of Wisconsin, 69-70.

The Potawatomi were still inhabiting the shores of Lakes Geneva, Como and Delavan when the first white settlers came to the region, in 1836. They are reported to have had villages on both the east and west shores of Delavan Lake, but the precise location of these is not designated. Their name for the lake is reported to have been "Wau ba shaw bess", or Swan Lake, and their name for Turtle Creek, its outlet, "Wau ba shaw se pee," or Swan water.*



Archeologic Map of Delavan Lake

The numbers indicate the locations of mounds and sites. See text.

Figure 1

The Winnebago, who had a number of villages on Rock River, called the lake Kay chunk er rah, meaning turtle, and its outlet by the same name. They also visited and occasionally camped on its shores.

TRAVELWAYS

In 1832 the most important Potawatomi village in this part of southeastern Wisconsin was that of Big Foot,

*More likely Wabisi nibi—swan water.

Maunk suck, located at Fontana, at the western end of Lake Geneva. Indian travelways connected this and other Potawatomi camps at Lake Geneva with the Potawatomi villages then located at Whitewater, Waukesha, Mukwonago, Muskego and Milwaukee. The principal trail lead from Lake Geneva in a general northerly direction through the Walworth county townships of La Fayette and East Troy to Mukwonago. This was known as the "army trail", being the route taken by a regiment of U. S. soldiers in their march from Fort Dearborn at Chicago to Fort Howard at Green Bay.*

Another trail "started from the foot of Delavan Lake, passed through Elkhorn, La Fayette and Troy to Prairieville, now Waukesha."*

The State Land Office map of the Delavan Lake region shows the course of a trail from the site of Elkhorn which ran in a southwesterly direction across Delavan Prairie and on to the Rock River, probably to the present site of Janesville. In Delavan township this trail, entering at its northeast corner, passed in a southwesterly direction across parts of Sections 1, 15, 16, 21, 20, 29 and 30. In the last four of these sections it was from one-eighth to one-half mile west of Delavan Lake. It crossed Turtle Creek, the lake outlet, in the southeast quarter of Section 20. Beyond Elkhorn this trail continued eastward to Waukesha and Milwaukee.

A trail from the southeast, from Lake Geneva, reached the west shore of Delavan Lake, probably at the site of the early Potawatomi village elsewhere mentioned. Another trail, from the Inlet on the north shore of Delavan Lake ran in a northwesterly direction to Turtle Creek at the present site of Delavan. It intersected the Milwaukee-Rock River trail in the northern part of Section 21.

These old Walworth County trails are described as having been well-trodden paths, so deep in places as to be more like shallow ditches than paths.

*West. Hist. Co., Hist. of Walworth Co., 315.

SITES AND MOUND GROUPS

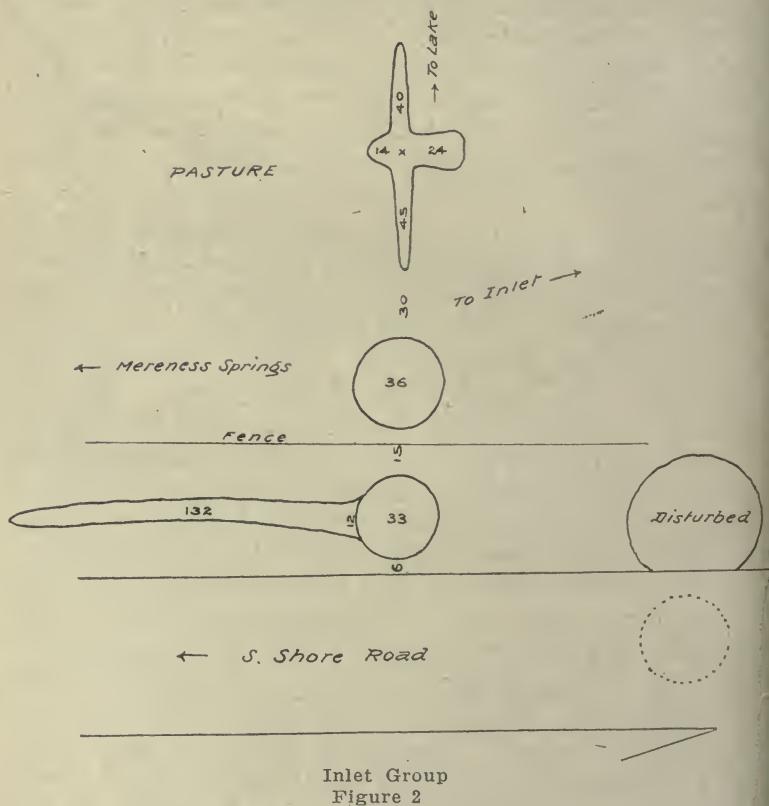
1. *Inlet Site.* It is quite evident from the character and abundance of the Indian remains found here that a more or less important Indian village must at some time have been located here. This site was on the Mereness and other farms on the northeast shore of Delavan Lake, south of the Inlet (Jacksons Creek). It was on both sides of the South Shore road. Along the lake shore the land is low and flat rising to higher land on the north side of the highway. The waters of Mereness spring, located on the north side of the road, flow to the lake through this village site.

This site, which has long been a favorite collecting ground for persons interested in Indian implements, was largely covered with grass on the occasion of our several recent visits to it. Mr. Tom Fleming states that when he worked on the Mereness farm, about forty years ago, numerous flint implements, hammerstones, celts and grooved stone axes were found here in the plowing and cultivating of the land. He at one time had a bushel basket full of such implements. These he disposed of to a collector for seventy-five cents. He also found here a large socketted copper spear point. Three stone axes were found together several years ago in a barnyard north of the road.

Both W. T. Ege and J. S. Topping, local collectors, have collected many flint implements on this site in recent years. Mr. Topping has several white flint blanks, part of a cache of about thirty of these which was disinterred and scattered by the farmer's plow about eight years ago. These were lying together in a small heap when disturbed. Some of his specimens are about three inches in length. He also has some arrow points of the fine, long triangular notched form which were found here, and are very rare on other sites about this lake. A part (half) of a broken banded slate bannerstone of the more or less common pointed-oval form was also found here.

Scattered flint chips, fragments and occasional flint blanks found in different places on this site indicate that the manufacture of flint implements was once carried on here. In former years this land was densely wooded.

2. *Inlet Mound Group.* South of the Inlet and east of the intersection of the South Shore and the Delavan to Fontana roads is a small but interesting group of four Indian mounds, the mounds situated quite close together. These are a short distance north of the village site just described.



The first of these Indian monuments is a small bird effigy with straight-outstretched wings, a common form of Wisconsin bird mound but of which only two examples have been found on the shores of Delavan Lake, the other, a mutilated specimen, being located on the Lake Lawn hotel property. This small bird effigy, which is in a tract of pasture land, has a wingspread of only 85 feet. The length of its body, from the top of its rounded head to the end of its body is 38 feet. One wing is no longer very definite.

Its body is about $2\frac{1}{2}$ feet high at its highest part. The head of this effigy is not directed towards the lake, the shore of which is about 300 feet distant.

This mound is separated from its neighbor, a conical or round mound 36 feet in diameter, and 3 feet high, by a section of the abandoned embankment of a former proposed Delavan Lake electric railway line. Fifteen feet beyond it, on the opposite side of a wire fence, is the circular head of a club shaped linear mound with a long tapering tail. This mound is near the edge of the South Shore road, which it parallels. Its circular head is 33 feet in diameter and $3\frac{1}{2}$ feet high and its tapering appendage 132 feet long and 12 feet wide where it joins the head. At this place it is 2 feet high becoming slightly lower toward its pointed extremity.

The remains of a large conical mound, now nearly obliterated, lie a short distance beyond the head of this mound. According to Mr. W. T. Ege, another mound of the same character was destroyed in the construction of the South Shore road.

It is very desirable that this small group of mounds should be preserved and marked with a tablet. Some Delavan organization should undertake this.

3. *Lake Lawn Mounds and Village Site.* On the fine lake shore property of the Lake Lawn Hotel Company, maintained by the Commonwealth Edison Company, the Peoples Gas Light & Coke Company, and the Public Service Company of Northern Illinois as a summer resort for their employees, there was formerly located the largest group of Indian earthworks in Walworth County, and one of the several largest in the southeastern corner of the state. The only other mound groups in southeastern Wisconsin, between the Rock River and Lake Michigan, which compared with the Lake Lawn group in the number of their earthworks were some of those located at Beloit, Afton and Lake Koshkonong to the west, and Whitewater and Racine to the north and east.

Those who have known this formerly imposing group of Indian earthworks at Lake Lawn for many years state that it originally included nearly a hundred mounds of various shapes and dimensions, these being distributed over the

entire property from the site of the hotel buildings on the lake shore west to the Delavan Lake road. A few were on the opposite side of the road.

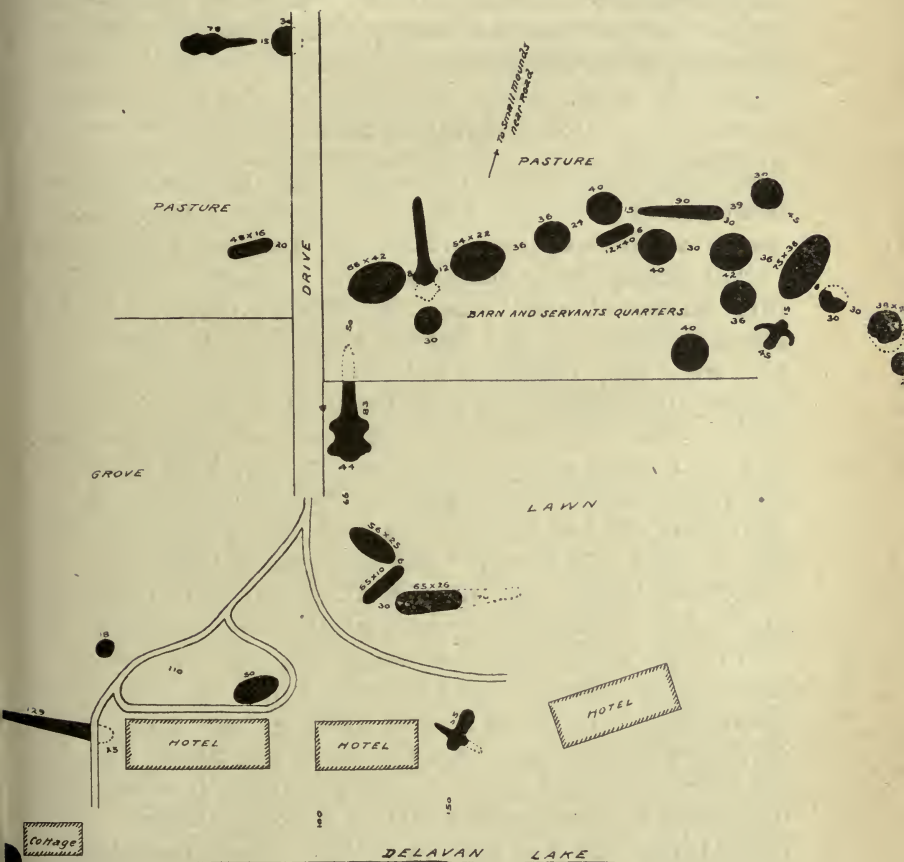
In the course of years a considerable number of the mounds in this group were destroyed in the cultivation of fields, in the construction of the road, in the "improvement" of the hotel grounds, and in the erection of buildings. Others have been sadly and needlessly mutilated. This was largely done before the present owners acquired the property.

In 1924, when the writer visited this site for the purpose of preparing a plat of the Lake Lawn mounds, there were still in existence on the hotel grounds and in the pasture lands west of the servants' quarters and barns a total of forty mounds, seventeen of these being conical, eleven oval, seven linear and five effigy mounds. Some others, in the pasture, had been cultivated beyond certain surface recognition. A plat of the mounds then remaining near the hotel buildings is shown in Figure 3. Seven small conical and oval mounds at the western limits of the pasture, near the Delavan road, are not included in this Figure. Another visit made in the following year found the destruction of several additional mounds accomplished in the preparation of an automobile park between the barn and the driveway from the Delavan Lake road to the hotel buildings. The construction of a golf course since then has probably caused the destruction of others.

The gradual destruction in the course of years of the greater part of the once impressive great group of ancient Indian monuments at Lake Lawn furnishes a very good example of the manner in which in the past fifty years so many other imposing groups of Wisconsin's prehistoric aboriginal landmarks have disappeared. This the present and future generations of our citizens will always regret. Of the nine mounds nearest the Lake Lawn hotel buildings four have been needlessly mutilated. A small bird effigy has lost a wing, a road cuts across the head of one tapering linear mound and the portion near the hotel building has been removed, the lower half of another tapering mound on the hotel lawns has also been removed, and the turtle effigy, perhaps the most interesting mound still re-

maining at Lake Lawn, has lost a considerable portion of its tail. These the present proprietors of the property might do well to fully restore.

One or several descriptive tablets should also be provided for the mounds at Lake Lawn. The Wisconsin Archeological Society has been promised that this will be done.



Lake Lawn Group
Figure 3

Of the round or conical mounds in the Lake Lawn group the largest is 42 feet in diameter and $31\frac{1}{2}$ feet high at its middle. Others are from 24 to 40 feet in diameter and from a foot to 4 feet high. Of the oval mounds the largest measures 75 x 36 feet, and the smallest 24 x 10 feet. Two

of the turtle effigies were each slightly over one hundred feet in length.

The late Wisconsin archeologist, Rev. Stephen D. Peet, knew the mound group at Lake Lawn, and prepared a sketch of some of the mounds in that portion of it nearest the hotel buildings. This appears in Figure 236, in his book, *Prehistoric America*, Vol 2. Many of the mounds are not included and the position and nature of others are incorrect in his illustration.

EXPLORATIONS

Some of the mounds in the Lake Lawn group have been excavated in past years but no information concerning the results of these excavations is now available except that human remains were found in some of these. "In March, 1911, Ernest F. and Chester W. Phillips began to trench across mounds on the family property. At seven feet downward they reached an oblong pit, seven by nine feet, carried about two feet further down into a stratum of loose gravel. The pit was floored with loose cobblestones made even with sand, and its walls were also of loose stones in the way of skillful well diggers. Two skeletons sat in opposite corners, and twelve more were laid or piled between, but no relics of other kind had been placed there."*

E. Field Phillips also furnished a report of this exploration to the Wisconsin Archeological Society (March 21, 1911). He stated that the mound explored was one of a half circle or chain of eight mounds in the rear of the hotel barn. It was about 40 feet in diameter and 3 feet high. At a distance of 6 feet from the top of the mound, this being 3 feet below the natural surface of the soil upon which the mound was erected, a burial pit was encountered. This pit had been dug in a layer of gravel. Its north and south measurement was 9 feet and its east and west measurement 7 feet. Its depth was 2 feet. The floor of the pit had been carefully prepared. It consisted of a layer of small stones covered with white sand and this with a thin layer of blue clay. This pit was separated in two parts by a dirt partition across its middle. In the northern part of the pit

* Bowen, *Hist. of Walworth Co.*, 40.

there were eight interments. Three of these lay in the middle side by side with heads to the north. East of these were two interments with their heads to the east, and west of them one burial with head to the west. All were laid on their backs with the legs bent up and the arms bent upward at the sides. In the northeast and in the northwest corner were two skeletons which had both been buried "in a sitting position".

In the southern part of the burial pit there were four skeletons laid side by side with heads also to the north. These were on their backs, the leg and arm bones flexed like those in the northern part of the pit. In the southeast and southwest corners were two other burials made in the same way, the heads being to the south.

Some of the skulls of the burials in the northern part of the pit showed fractures and other injuries. Mr. Phillips felt certain that all of these burials had been made in the flesh. These bones were all well preserved. Of the burials in the southern section of the pit three were evidently bone re-burials. These were very dry and crumbled to powder when handled.

The mound itself had been constructed with evident care. A layer of tough black dirt and surfaced with a thin covering of clay, the whole about one foot in thickness, had been placed over the bodies and pit. Near the top of this layer were some ashes. The clay had probably been moist. On top of it was a layer or deposit of ashes about 2 inches thick. This was probably the remains of a fire employed in baking the clay covering of the waterproofed dirt envelope above the burials. It extended to the edges of the mound. On top of these ashes were two feet of earth and on its top another thin layer of ashes. Earth was heaped over this to the top of the mound. Near the top of this layer were some ashes probably remains of another fire. A flint blank, a sandstone pebble 8 inches in diameter, and a red stone 6 inches in diameter, were found in the top of this mound at depths of $1\frac{1}{2}$, 3 and 4 feet.

Mr. Phillips and his brother spent three days in excavating this mound and the work appears to have been carefully done. They were the proprietors of the hotel at that time.

In May 1912, Mr. Phillips explored another mound located near the one previously excavated. In this mound he found a skeleton "in a sitting posture", the top of its skull being only 2½ feet below the top of the mound. Its arms were at its side, its legs extended in front. Lying near its side were the skeletons of a woman and young child. Beneath the head of the female skeleton were two thick clam shells and a number of small snail shells, possibly part of a necklace. Lying crosswise near the feet of the seated skeleton was another adult skeleton. The skulls of these burials had low, flattened foreheads.

A large iron spearpoint in the collection of Mr. W. T. Ege was found with an interment in another of the Lake Lawn mounds. A large piece of pipestone was found by Mr. Topping sticking out of the lake-eroded mound on the lake bank in the rear of the E. J. Ellis' cottage. The writer found a well marked pebble hammerstone in a cut in the body of the turtle effigy.

VILLAGE SITE

The large number and character of the Indian earthworks at Lake Lawn clearly indicate that this was the site of an early important Indian village evidences of which are obscured beneath the present sod of the golf course, pasture and lawns of the resort. Indian implements are reported to have been recovered from this land in former years when these fields were under cultivation.

A few scattered flint chips and burned stones were found in the pasture west of the hotel buildings during our visits to Lake Lawn.

In recent years Indians are reported to have camped on the wooded point, Wigwam Point, on the north shore of the Outlet on this property. Two important trails crossed at or near Lake Lawn.

4. *Tilden Mounds.* A group of six mounds is located on the A. Tilden farm on the north side of the outlet of Delavan Lake, in the N. ½ of Section 21. They are about one fourth mile west of Lake Lawn. They have been under cultivation since 1912 when their presence was reported by E. F. Phillips. Most of them are conical in form. One appears to have been an effigy mound.

5. *Outlet Sites.* Indian camp sites are located on the lands both north and south of the outlet (Turtle Creek) of Delavan Lake. These fields are under cultivation but the flint rejectage of the aboriginal arrow-smith and stones from former fireplaces, now scattered by the plow and harrow, were found in many places. The wild rice which formerly grew in the outlet, the presence of beds of river clams, the good supply of fish in the creek, and former good hunting along its banks, attracted the Indian to these sites.

Especially good grounds for the collection of Indian implements were the Tilden, Barnes and Phillips farms but other camp sites were located along the banks as far north as Delavan, a distance of three miles. On the farm sites mentioned Messrs. Ege, Topping, Phillips and other collectors have in past years collected hundreds of archeological specimens. Other camp sites occur along the creek north of Delavan.

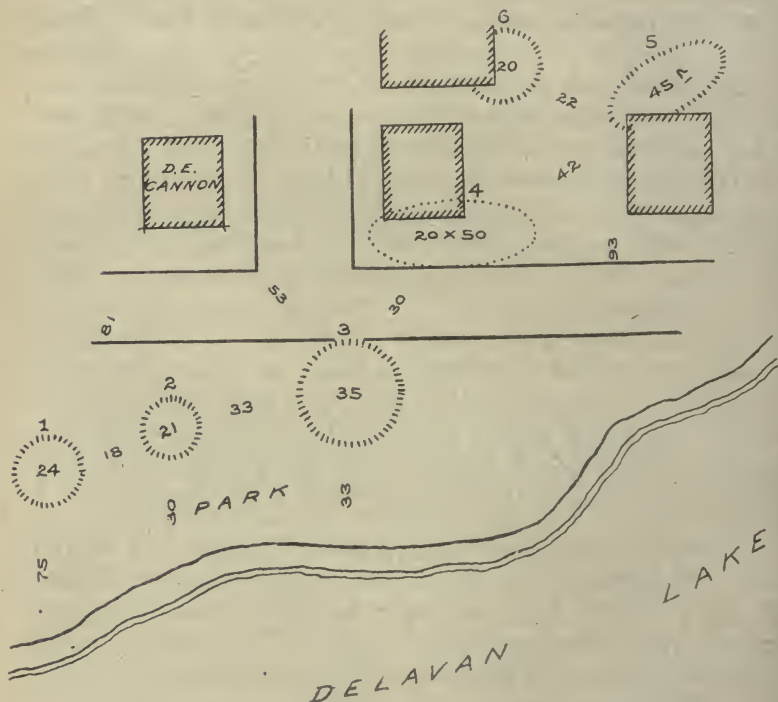
Opposite Lake Lawn and the Delavan Lake Assembly grounds the Outlet, according to maps, is about a fifth of a mile wide. It narrows gradually and near the middle of Section 20, about a mile and a half west of the lake, becomes a normal sized stream. The land along its marshy banks was in early days covered with a fine forest.

6. *Delavan Lake Assembly Grounds Mounds and Village Site.* A group of six conical and oval mounds is located on the attractive Delavan Lake Assembly grounds on the west shore of Delavan Lake, south of the Outlet. This group is shown in Figure 4. The mounds are all within short distances of each other. Three of them are permanently preserved in the park along the lake shore. These three are all conical in form, at the present time 21, 24 and 33 feet in diameter, the two smaller tumuli being each about $2\frac{1}{2}$ and the largest about 4 feet high. They are 33, 30 and 75 feet distant from the lake bank which is here from 7 to 9 feet high. All of these mounds had been dug into by relic hunters at some time in the past.

About 30 feet beyond the largest of these conical mounds there was up to a few years ago an oval mound 20 by 50 feet in size. This was removed by the owner of the lot upon which it was located. This is now greatly regretted

since by moving the site of the cottage but a few feet a notable historical monument might have been saved. So far as can be learned no interments were disturbed during its removal.

A short distance beyond the site of this mound are two other mounds which are mutilated by being intruded upon by the rear of two cottages. One of these, a small conical



Assembly Ground Group
Figure 4

earthwork, is 20 feet in diameter and now about one foot high. The other, an oval mound has diameters of 17 and 45 feet. Its height at its highest point is about 18 inches.

It is difficult to understand why the individuals or organizations who have charge of the platting of such beautiful summer resort properties as those at Lake Lawn and the Assembly grounds do not set aside in small public spaces the interesting Indian monuments located there, also why people who erect cottages must erect them on the

mounds. There are many instances of such thoughtlessness in Wisconsin.

A small, low conical mound is located some distance west of the group described. This mound is about 30 feet in the rear of the Assembly store. A small outhouse stands partly upon it.

On September 4, 1903, Mr. W. P. Clarke of Milton, reported the presence of a dumbbell shaped mound on the western part of the Assembly grounds. It was located "not far from the dining hall" (the store) on a path leading to the Outlet, being "three or four rods" from the shore. What appears to be a remnant of this mound is situated on a lawn not far from the boathouse, at a distance of about 75 feet from the water's edge.

VILLAGE SITE

An Indian village site is located on the Assembly grounds. This extended through the park and over the lots now occupied by cottages along the lake front. It is largely covered with sod so that an examination of it is not now possible. In paths and bare spots flint chips and spalls and fireplace stones are found. An examination of the eroded lake bank yielded several cord-marked and un-ornamented potsherds, a flint blank, a broken bone awl, a pebble hammer stone and burned and broken hearthstones. The flint chips found were chiefly of white and grey colors. Mr. Ege and other collectors have found flint points on this site in past years.

On the grounds of the Edward Tilden summer home at Mabiewood, a short distance south of the Assembly grounds, an Indian burial was unearthed a few years ago.

In 1924 the ladies of the history department of the Delavan Woman's Club, through the efforts of Mrs. D. E. Cannon, became interested in the preservation and marking of the until then neglected mounds on the Assembly grounds.

"On Sunday, July 12, 1925, archeologists, historians, and many other interested persons from Madison, Ft. Atkinson, Elkhorn, Darien, Sharon, Williams Bay, Lake Geneva, East Troy, Janesville, Beloit, Kenosha and other southern Wisconsin cities and villages journeyed to Delavan to attend the unveiling of a tablet marker on a group of prehis-

toric Indian mounds located on the Assembly grounds on the shore of Delavan Lake. Over one hundred persons were present at the unveiling ceremony. Among these were many residents of the summer resort colonies on the several shores of this large and beautiful southern Wisconsin lake. Quite a number of these, coming from Chicago, Rockford, Freeport and other northern Illinois cities, had never before seen an Indian mound."

Among the speakers on this occasion were Mr. H. E. Cole, president of the State Historical Society; Mr. W. C. English, Dr. W. G. McLachlan and Mr. Charles E. Brown, secretary of the Wisconsin Archeological Society.*

7. *Cedar Point Village Site.* The site of another early Indian village extends from Cedar Point on the west shore of the lake northward nearly to Woodlawn Bay half a mile south of the Assembly grounds. Indian stone implements have also been collected here in past years by summer residents of the lake shore cottages and resorts. On this site, between the Manhattan and Hiawatha resorts, there was located in 1859, the last large "Winnebago" camp on the shores of Delavan Lake. Mr. Peter Nelson, a pioneer in this region, played with the Indian boys of this camp in his boyhood. He states that there were a hundred or more Indians here. They lived in rush matting and bark covered wigwams and had some log canoes. Doubtless this point has long been a favorite Indian camp site.

8. *Willow Point Camp Site.* At this second attractive point, a mile southwest of Cedar Point, is the former site of another identified Indian camp or village site. Flint points, knives and perforators and other stone implements were formerly collected here in farm fields under cultivation. Mr. Ege reports the finding here of a fluted stone axe. Flint chips were found by the writer to be quite numerous in the rear of some large willow trees on the lake bank, where a flint workshop appears to have been once located. He was informed that in one field a small refuse pit containing a few animal bones and clam shell valves had once been disturbed.

* Wisconsin Archeologist, 4-3, 157.

9. *Slough Camp Site.* At the head of a slough extending into the G. N. Arnold farm at the foot of Delavan Lake (NE. $\frac{1}{4}$ Section 31) many flint and other stone implements have been collected by Messrs. Ege and Topping. Other collectors have obtained flint knives and points and hammer stones here and noted the presence of burned stones from wigwam fires in the farm fields. The usual indications of flint working are found here. The slough itself, with beds of rushes and forested banks, is a very picturesque spot. The Chicago Boy Scout camp is located north of the Slough site.

10. *Foot-of-the-Lake Village Site.* At the foot (south end) of Delavan Lake there is a large area of low, marshy ground from which the land slopes gradually upward to the lake road. On these lands, on the old Morgan and Arnold farms, many Indian stone implements have been found in past years. These lands were in pasture at the time of the author's several recent visits to this site so that no examination of the land or collections from this site could be made. Hundreds of fireplace stones were found imbedded in the pasture sod on the old Morgan farm. A fine spring is located on the edge of the marsh on this place. This was probably one of the factors in the selection of this locality as the site for a village. In this spring, in his boyhood Mr. J. S. Topping found a large ten or more pound grooved stone maul.

Mr. Oliver Le Mere informs the writer that the Winnebago had a belief that springs were the openings through which the animals entered the spirit world. Offerings of tobacco and various articles were there offered to them in former days to obtain their blessings. The Potawatomi and other former Wisconsin Indians probably had a similar belief. This may account for the finding of stone and bone implements, animal bones, fragments of earthen vessels and other articles in some "sacred" springs in this state. A trail, probably from Geneva Lake, formerly ran to this village site at the foot of Delavan Lake.

11. *Barlows Island Camp Site.* On this island, at the foot of the lake, a large, rough fluted stone axe was found in former years. Some flint arrowpoints and scrapers have also been obtained. This wooded island is now occupied

by the summer home of Henry Darlington. The island is approached by a road built through the marshy ground. Some recent maps show this pretty island as a large curved point at the south end of Delavan Lake.

12. *Spring Lawn Mounds and Site.* At the Spring Lawn summer resort settlement (Sharon Springs) on the east shore of the lake, there are two small groups of mounds. One of these is located on the lake bank near the hotel and store. In this group there were in 1924 and 1925 six mounds. One of these was a mutilated conical mound located on the very edge of the rather low lake bank. Only about half of this mound remained the other part having crumbled into the lake with the erosion of the bank. At a distance of 28 feet north of it was the tail, 69 feet in length, of a former panther or water spirit effigy mound, the body of which had also crumbled into the waters of the lake. This tail, which extended toward the hotel-store building, curved slightly upward at its end. It was 22 feet in width at the lake bank and extended eastward for a distance of 51 feet, the curved portion beyond being 18 feet long.

Eighteen feet beyond the end of this tail was a conical mound 20 feet in diameter and $1\frac{1}{2}$ feet high at its middle. Directly north (45 feet) of the tail of the former effigy were two oval mounds. These were side by side and only 5 feet apart. The first measured 27 x 15, and the second 26 x 21 feet. They were about $1\frac{1}{2}$ feet high. A huge, solitary cottonwood tree, 14 feet in circumference, stands 12 feet beyond this last mound. Forty-two feet northeast of this large tree was a large oval mound. This mound was 45 feet long, east and west, 15 feet in width at its eastern and 14 feet in width at its western end. Its height was only $1\frac{3}{4}$ feet. Some vandal, probably desiring earth for a flower bed, had removed a considerable amount of earth from the southern edge of this mound. Its western end was 75 feet back from the lake shore. East of it is a stand of scattered oak trees and beyond these a row of summer cottages. An examination of the tail of the effigy showed that it had been constructed of black soil. A burr oak tree $21\frac{1}{2}$ feet in diameter stands on the southern edge of this tail, on the lake bank. These mounds are

located on a lakeshore common and there is no present excuse for their being disturbed. They should be protected from further injury and a metal tablet marker should be provided for them. Their present neglected condition reflects no credit upon this summer resort settlement. A short distance south of these mounds there is a small marshy area some of which has been converted into solid land. At the head of this marshy area is a spring.

East of these mounds, near the intersection of the main street of Spring Lawn with the South Shore road are two mutilated mounds. These are on a lot owned by Geo. W. Hull (Stumble Inn) across the road from the "Dutch Mill" dance hall. The driveway leading from the street into the Hull backyard passes over a now low conical mound which is about 36 feet in diameter, and then over the head of a low but still plainly indicated tapering linear mound. A portion of both the Hull and C. A. Francis cottages stand on the edges of the conical mound. A portion of the head of the linear mound has been removed in the Francis backyard. This mound was probably originally about 100 feet long. Eighty-six feet of it extend across the Hull backyard. It is about one foot high at its highest part. There may once have been other mounds near these but no trace of them could be found.

In the construction of cottages and in garden making at Spring Lawn a few flint arrowpoints and stone celts have been found, faint indications of the Indian village site which must at some time have been located here. Indians are reported to have camped here when the first white settlers came to this region.

13. *Island View Camp Site.* Another camp site is located at Island View resort, on the southeast shore of the lake. Here a small creek flows into the lake. The mouth of this creek is named on some maps as the Duck Hole, on others as Hoags Cove. Messrs. Ege and Topping have collected stone implements from this former Indian habitation site in years past. Scattered flint chips and fragments indicate the site of a former Indian workshop.

On this shore of the lake between Island View and Mereness Springs there were very likely other early Indian camp sites but no indications of these could be found at the time

of the present investigation. Tracts of woodland and summer resort homes occupy this stretch of shoreline.

14. *Other Sites.* Some camp and workshop sites are also located in cultivated fields on the farms along Jacks-sons Creek northeast of the head of the lake. Others occur along the banks of Turtle Creek north of Delavan. There was once a Winnebago camp on Institute hill in Delavan. The trail from the Inlet passed over this property.

THE MOUNDS

As indicated in the previous chapters of this report the Indian earthworks located about Delavan Lake are situated in five different localities, two of these groups being on the east and two on the west shore and one on the Outlet. Of these the largest group is that located about the Lake Lawn resort. The present, or recent, number and character of the earthworks in these groups is as follows:

	Conical	Oval	Linear	Dumbbell	Effigy	Total
Inlet -----	3	--	1	--	1	5
Lake Lawn -----	17	11	7	--	5	40
Tilden -----	5	--	--	--	1	6
Assembly -----	4	2	--	1	--	7
Spring Lawn-----	2	3	1	--	1	7
	31	16	9	1	8	65

If the fifty or more additional mounds reported to have originally existed in the formerly cultivated fields at Lake Lawn are added to the present total number of mounds we have a total of about 105 earthworks formerly situated about this lake.

Of the number of effigy mounds recorded during the present survey of the Delavan Lake region three are or were representations of the turtle, three of birds, and one of a water spirit or panther effigy. All but one of these has been mutilated by the loss of a wing, or portion of a tail, or by being mutilated or partly destroyed by cultivation or land improvements.

The largest of the conical mounds still in existence about Delavan Lake, 42 feet in diameter and about 3½ feet high, is at Lake Lawn. Several others, at the Inlet, and on the

Delavan Lake Assembly grounds approach this tumulus in size.

The largest of the oval mounds, also situated at Lake Lawn, has dimensions of 75 x 36 feet. The largest tapering linear is 129 feet long, and the largest straight linear 48 feet. Both are at Lake Lawn. The only club-shaped linear at Delavan Lake is in the small group at the Inlet. It is 165 feet in length and is the largest of all of the linear earthworks about this lake.

The present mutilated and neglected condition of many of the prehistoric Indian landmarks located about Delavan Lake is greatly to be regretted. The damage done to the local memorials of the early redman can be repaired and future damage prevented if the local Rotary Club and other organizations, the officers of the Lake Lawn resort, and the summer residents of the Spring Lawn resort, will devote some attention to their preservation and marking.

The author is informed that during the present summer and autumn nearly one thousand residents of and visitors to Delavan Lake viewed the mounds on the Assembly grounds which the ladies of the Delavan Woman's Club have preserved and marked.

COLLECTIONS

A large number of stone implements have been collected from the Indian sites about Delavan Lake. Those along the outlet have yielded, local and other collectors state, an especially large number of these. The number of native copper implements found has been small. Some of these were obtained in the seventies by the formerly well-known collector, Frederick S. Perkins of Burlington, and again later disposed of by him in the several collections which he sold to the museums at Milwaukee, Madison, St. Paul, Washington, and to private collectors.

Perhaps the best collection of Delavan Lake artifacts is that of W. T. Ege. It contains about two thousand specimens which its owner has collected from camp and village sites, largely about this lake, in the past twenty years. In addition to the common run of village site specimens this collection contains some unusual pieces. Among these are five fluted stone axes, a large, broad grooved stone axe with

prominent projecting ridges above and below the groove, and a double-grooved axe. Of ordinary stone celts and grooved axes the collection contains a quite considerable number. A tapering, cylindrical stone pestle is one foot in length. These stone pestles are not common in Wisconsin.

There are in the collection a number of arrow and spear-points and knives made of Wisconsin quartzite of different colors. Some of these were probably made here since quartzite chips and blanks have been found on the outlet sites. A four-inch discoidal with a rough surface is provided at the middle of each side with a finger grip. There is also a two-inch polished discoidal. Among the pipes in the collection is an ovoid pipe made of white quartz.

A double-crescent banner stone-shaped gorget with two perforations is made of banded slate. One of its surfaces is convex, the other flat. One wing of this specimen is broken. A banner stone of the butterfly type, with rounded corners, comes from the banks of Turtle Creek, north of Delavan. A small piece of galena in the Ege collection was found on one of the Outlet sites. Other pieces are reported to have been obtained here.

Mr. J. S. Topping also has a very interesting collection of stone implements, ornaments and ceremonials collected by himself from the Indian habitation sites about Delavan Lake and Delavan. It includes numerous flint points, perforators, scrapers and knives. He has a number of grooved stone axes (several of them five or more pounds in weight), stone celts or hatchets, hammerstones (several of these with opposite finger-holds), stone balls, two hemispheres, two broken slate banner stones of the oval type, a broken slate gorget, and some cord-marked potsherds. Among his flint points are two specimens of the rather rare, fine triangular type with truncated barbs.

In the F. S. Perkins collection, purchased by the State Historical Society in 1870, there are five stone axes recorded in Mr. Perkins catalogue of the collection as "from mounds at Delavan Lake." There is no information as to what mounds these were obtained from. There is also a stone axe found at "East" Delavan. A slate gorget was also collected at Delavan Lake.

No notched pebble sinkers, gouges, adz-celts, adzes or spuds are known to have been recovered from the Delavan

Lake region. A discoidal was found near the creek in Delavan, and several grooved pebble sinkers near the site of the mill.

Researches which the Wisconsin Archeological Society is conducting in Walworth County may furnish additional information concerning the material culture of the early Indian inhabitants of the Delavan Lake region. Persons having information regarding the Indian history or archeological remains in the county are requested to report the same to the writer.

CLOSING REMARKS

In closing this preliminary report of the archeological history of the Delavan Lake region the writer wishes to express his grateful appreciation of the helpful interest and hospitality of Mr. and Mrs. D. E. Cannon of Delavan. Also to Mr. and Mrs. W. T. Ege, Mr. and Mrs. J. S. Topping, Mr. Ray Cannon and Mr. S. C. Wadmond for their interest and assistance.

ARCHEOLOGICAL NOTES

MEETINGS

The last meeting of the Wisconsin Archeological Society before its regular summer adjournment was held in the trustee hall of the Milwaukee Public Museum, on Monday evening, June 16, 1926. President George A. West conducted the meeting, there being sixty members and visitors in attendance. A list of the standing committees appointed by the President to serve for the ensuing year, was read.

Dr. S. A. Barrett presented an interesting report on some of the more important business transacted by the American Museums Association during its recent meeting held in New York City.

Mr. Charles E. Brown gave a talk on "Progress in Archeological Research in Ohio," which he illustrated with pictures of mounds and printed reports. He described at length the meeting of the Central Section, American Anthropological Association, held at Columbus, Ohio, on May 14-15, the pilgrimage to Fort Ancient, the Serpent Mound, the Hopewell and Seip mounds and other notable prehistoric Indian monuments; conducted by the Ohio State Archeological and Historical Society; the archeological collections of the Ohio State Historical Museum; the results of some recent archeological field-work in that state, and a visit made by himself and Mr. George R. Fox to the famous ancient Indian flint quarries at Flint Ridge, Ohio.

Mr. Don S. Howland, Madison, and Dr. H. W. Kuhm, were elected members of the Wisconsin Society.

The first of the autumn meetings of the Wisconsin Archeological Society was held in the trustee hall of the Milwaukee Public Museum, on Monday evening, October 18, 1926. President West called the meeting to order. There were fifty-three members in attendance. Secretary Brown presented a brief report of the researches conducted by various members of the state society during the summer months in a number of counties. He also reported on several sectional field meetings held, and on additional groups of Indian mounds preserved.

An exceptionally interesting and beautifully illustrated lecture on "Across the Painted Desert and to the Rainbow Bridge" was given by Mr. Ira Edwards, geologist of the Milwaukee Museum.

Exhibits of Indian stone and bone implements were made by several members of the Society.

Secretary Brown reported the following persons elected to membership in the Society by the Directors: Milton F. Hulbert, Reedsburg; Frank Weston, Madison; Stanley E. Bates, Chicago; P. G. Nichols, Ogilvie, Minn.; Donald O. Boudeman, Kalamazoo, Mich., and Charles Thubauville, Milwaukee. Mr. John De Cora and Miss Susie De Cora, members of the Winnebago tribe, were elected honorary members of the Society.

The regular monthly meeting of the Wisconsin Archeological Society was held in the trustee hall of the Milwaukee Public Museum, on Monday evening, November 15, President West presiding. There were seventy-eight members and guests in attendance, these including many members of the Wisconsin Museums Conference, which was holding its annual autumn meeting at Milwaukee.

Mr. Paul S. Martin, of the University of Chicago, gave an interesting talk on "Recent Archeological Investigations in Northern Illinois" being a report of field-work recently conducted in the vicinity

of Galena, during which some 300 mounds were located and a number explored by students of the department of anthropology of the University. Mr. Huron H. Smith, vice-president of the Wisconsin Society, presented an unusually interesting lecture on "The Technique of Autochrome Photography" which he illustrated with the finest collection of colored lantern slides probably ever shown at a meeting of the Society.

At the close of the meeting Mr. Anton Sohrweide exhibited a small collection of selected flint and other Indian implements obtained from Indian sites in the vicinity of Watertown. These were displayed in Ricker mounts.

At the meeting of the Executive Board, held earlier in the evening, there were elected to membership in the Society Dr. Albert T. Weibrecht, H. W. Eskuche, Geo. Weinhausen, Jr. and E. C. Cooper, all residents of Milwaukee.

The Wisconsin Museums Conference held its annual fall meeting at the Milwaukee Museum, on November 15 and 16, 1926. Among the members in attendance were representatives of the museums at Milwaukee, Madison, Oshkosh, Green Bay, South Milwaukee, Clintonville, Neillsville, Beloit, St. Paul, Minn., Three Oaks, Mich., Chicago, and Dubuque. The opening meeting was held in the museum lecture hall. President Arthur C. Neville introduced Mr. George A. West, who welcomed the Conference in the name of the Museum Board.

The program of the morning session consisted of interesting illustrated papers presented by Mr. Walter C. Owen, Mr. Willoughby M. Babcock, Mr. Albert M. Fuller, Mr. T. E. B. Pope, Mr. Ira Edwards, and Mr. O. J. Gromme.

The afternoon was spent in viewing the laboratories, collections, and methods of public school instruction of the Museum. In the evening all of the members attended the meeting of the Wisconsin Archeological Society.

The Conference met again in the Museum on the following morning, when papers were presented by Miss Charlotte M. Partridge, Mr. A. G. Pelikan and Mr. C. E. Brown. These were discussed by those present.

In the business meeting which followed Secretary Buckstaff presented a report of the finances and membership of the Conference. It was, on the motion of Mr. T. E. B. Pope, unanimously decided to change the name of the Conference to the Mid-West Museums Conference. Dr. S. A. Barrett was elected president, Mr. Willoughby M. Babcock, vice-president, and Mr. R. A. Buckstaff, secretary-treasurer of the Conference. The newly elected Board of Directors consists of Mr. A. C. Neville, Miss Charlotte M. Partridge, Mr. C. E. Brown, Mr. W. A. Olen and Mr. Huron H. Smith.

The president-elect was ordered to appoint a committee to consider the preparation of a "Small Museum" demonstration exhibit at the 1927 Wisconsin State Fair. A proposal to hold a museum school at some future meeting of the Conference was discussed.

Publications

A report issued by the Ohio Archeological and Historical Society, "Explorations of the Hopewell Group," by H. C. Shetrone, contains a full account of both the previous and recent explorations of the mounds of this very rich and interesting group of prehistoric Indian earthworks. The illustrations are excellent.

From the press of the University of California there has recently come a monograph, "Pomo Folkways", by Edwin M. Loeb. In this publication the economic life, social organization, and religion of this

very interesting linguistic group of North Central California Indians is very fully treated. There are three plates and two text figures.

In the 1924 Yearbook of the Milwaukee Public Museum Dr. S. A. Barrett has published two short, but very interesting papers, "Field Studies for the Catlinite and Quartzite Groups" and "Aboriginal Copper Mines at McCargo's Cove, Isle Royale." The first gives an account of a museum expedition made in July, 1924, to the Indian pipestone quarries and quartzite sources on Rock and Silver Creeks, in Barron county, Wisconsin, to obtain material for two miniature groups illustrating the aboriginal quarrying of these materials, and which are now installed on the main floor of the museum. The second article tells of an expedition to the well-known aboriginal copper mines on Isle Royale, organized for a similar purpose. The several miniature groups which have been constructed cannot fail to interest students of American archaeology who visit the museum. In this report are other interesting articles and reports by Huron H. Smith, A. M. Fuller, Ira Edwards, T. E. B. Pope, W. C. McKern and other members of the museum staff.

A recent issue of *The Michigan Alumnus* there is an illustrated paper on "Primitive Men of Michigan" giving an account of the archeological survey of that state undertaken by Dr. W. B. Hinsdale. This article closes with the advice and request: "The time for indiscriminate and careless investigation of Indian remains has passed. Every alumnus who knows of localities where Indian relics have been found should report that fact to Dr. W. B. Hinsdale, Custodian of Michigan Archeology, University Museum. No digging should be undertaken except under proper direction."

In the Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Zelia Nuttall has published her translated and edited "Official Reports of the Towns of Tequizistlan, Tepechpan, Acolman and San Juan Teotihuacan Sent by Francisco de Castaneda to His Majesty, Philip II and the Council of the Indies, in 1580."

The 1926 Proceedings and Collections of the Wyoming Historical and Geological Society contains a valuable illustrated monograph on "Aboriginal Rock Shelters and Other Archaeological Notes of Wyoming Valley and Vicinity," By Max Schrabisch.

"A Pueblo Indian Journal, 1920-1921", with introduction and notes by Elsie Clews Parsons, appears in No. 32, *Memoirs of the American Anthropological Association*, 1925.

In the November and December issues of *The Wisconsin Magazine* are continuations of the paper on "North Wisconsin in History and Romance", by Justice C. H. Crownhart. It is well written and very interesting.

A paper by Dr. J. Walter Fewkes on "The Chronology of the Mesa Verde" appearing in the July-September, 1926, issue of the *American Journal of Archaeology*, is of special interest to students of the archeological history of the southwest.

The August, 1926, issue of the *Journal of The New York Botanical Garden* contains a paper on "Plant Arrow-Poisons: their Sources, Preparation and Effects", by Ralph H. Cheney. "No plant arrow-poisons have been employed commonly in North America with the exception of *Anemone* species in the northern and northwestern Alaska. The blow-gun was used in some regions but never with poisoned darts. There are no records which indicate that the Indians of the United States used vegetable poisons extensively for arrows. The Indians

of the southwestern Oregon area utilized the stems of three or four plants in preparing arrow-poisons. The Erie Indians are reported to have used poisoned arrows about 1635, but it is not known what plants, if any, were employed."

Recent issues of the Green Bay Historical Bulletin contain papers on "Historic Sites About Green Bay: The Landfall of Nicollet, 1634", "Astor" and "The Borough of Fort Howard", and "Sketch of Rev. Gabriel Richard".

The 1925 Report of the Department of Mines, Dominion of Canada, Ottawa, contains a report of the work of the Anthropological Division. It records recent archeological and ethnological researches conducted among the Beila Coola, Girkisan Carrier and Sikani Indians of British Columbia, and among the Montagnais Indians of the Lower St. Lawrence.

The October-December, 1926, issue of the American Anthropologist contains a full report of the May 14-15, 1926, meeting of the Central Section of the American Anthropological Association at Columbus, Ohio. This is contributed by George R. Fox, secretary of the section.

"Pre-Historic Man in Tennessee" is the title of a paper published by P. E. Cox, state archeologist, in the Journal of the Tennessee Academy of Science, July, 1926. This is a report of the field work done by the Tennessee Archaeological Society.

Other Items

All members of the Wisconsin Archeological Society will regret to learn of the death early in the year of Dr. Henry M. Whelpley, the well-known St. Louis archeologist. Dr. Whelpley was for many years a member of the Wisconsin Society and was personally acquainted with many of its older members. His collection of hematite implements, largely collected from Missouri and southern Illinois, was considered to be one of the finest collections of Indian implements and ornaments made of this material in the country.

Mr. Oliver Le Mere is preparing for publication at Chicago a book of selected Winnebago folklore. It is intended for the use of schools and will be well illustrated.

During the past summer Mr. Frank Weston and others set on foot a most praiseworthy project of preserving as a community park the forested tract of land at the foot of Lake Monona, at Madison, commonly known as Frosts Woods, and containing within its boundaries the only group of Indian mounds still intact on the shores of this lake. This woodland has been for many years a favorite camp ground of the Winnebago Indians. To assist in arousing public interest in the preservation of this tract a group of Winnebago were invited to camp there. The mounds were cleared of brush and marked with temporary markers. Several trails were also cut through the woods. A public gathering was held on this site to which many persons came. A spell of rainy weather, which occurred at this time, temporarily spoiled the well-laid plans for securing and preserving the woodland.

During the summer the Society was informed that some of the mounds located on the former Stout place at Rice Lake, Barron County, were being demolished in preparing this land for use as a tourist park. A protest was immediately made to the mayor of the city and to the local Rotary club. Both denied the intention of the

city to wreck this group of old Indian earthworks and promised their preservation. The Rotary club was requested to mark them with a tablet.

Mr. Stanley E. Bates is preparing for publication a book locating and describing the archeological and historical landmarks along the Rock, Wisconsin and Mississippi rivers in southern Wisconsin and northern Illinois. This promises to meet a long felt want of the tourist and other interested persons.

The Wisconsin Archeological Society will welcome to membership in its ranks at any time all persons interested in Indian archeology, ethnology, folklore or history. Applications may be handed to any member of the Society.

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NEW SERIES

No. 2

PIKE LAKE



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Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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YOUNG WINNESHIEK, WISCONSIN WINNEBAGO

The Wisconsin Archeologist

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Vol. 6

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No. 2

PIKE LAKE

CHARLES E. BROWN

Pike Lake is situated in Hartford Township, in the southwestern part of Washington County. The head of this lake is two miles east of Hartford and less than two miles southwest of Schleisingerville. The lake is irregularly circular in shape and slightly over two miles long and wide. A prominent point, Eagle Point, indents its southern shore. The lake is fed by a creek which flows into it on its north shore flowing from the northeast, and by two smaller streams, one of which enters its waters on its east and the other on its south shore. The latter has its origin in two springs on the E. L. Phillips farm. Its outlet is a fork of the Rubicon River which flows in a general westerly direction from the north end of the lake through Hartford and to the Rock River.

The name given the lake by the early Indians was Nokum, or "Heart" Lake, because of its shape. Mr. Elisha Amidon states that it was already called Pike Lake when he came to the region in 1846.

The archeological researches upon which the following paper is based were undertaken by the writer and Mr. Theodore T. Brown in September 1919.

INDIAN SITES

Tamarack Island Site (N1½ Sec. 23). At the north end of Pike Lake, lying between two creeks, the inlet and the outlet to the lake, is an island several acres in extent, the southern point of which is crossed by the road to Hartford, located one mile to the west. In its rear is a tamarack swamp and on its east and west sides low, marshy areas of small extent. At the southern point of the island is a remnant of tamarack swamp formerly of greater extent than at present, some of it having been destroyed by

fire. This occupies the northern end of the lake being at present fronted by a marsh of considerable extent.

Along its front this island, which forms a part of the John Zurn (former Goetz) farm, is elevated but a few feet above the road and swamp. A portion of it, fronting the road, is fairly level and under cultivation. Another part, on the edge of the field, is occupied by a gravel pit, and the northern end, which is hummocky, by a piece of pasture land.

From this field a large number of flint and heavier stone implements, including some grooved stone axes and celts have been collected. It has also yielded several copper spearpoints. Its surface is very gravelly as are nearly all of the fields about this lake. In an examination of this site we found scattered over its surface a considerable number of fire stones and flint chips and fragments. A small amount of digging in favorable spots revealed others. They were not however as numerous as one might expect them to be in so favorable a location. No potsherds were found.

From the limited amount of flint workshop material which it was possible to collect it was noted that the material in use by its former aboriginal inhabitants in the manufacture of flint points and knives was of white, grayish white, and grey, bluish grey, buff and reddish colors. Some of this material may have been obtained from the gravel deposits on this site. Some white quartz was also chipped here.

Several broken arrowpoints, two rude oval blanks, one of flint and one of quartz, and two flake scrapers were also found on this site.

No burials, so far as we could learn, have been disturbed in the working of the gravel pit.

Zurn Farm Site (NW.1/4 Sec. 23). This site occupies the elevated land of the John Zurn farm on the northwest shore of the lake. An examination of the fields on this farm from which the crops had been removed revealed scattered hearth stones and here and there a flint flake or spall on the gravelly soil. Many arrow points, numerous axes, celts, a few hammer stones, and quite a number of copper implements have been collected here in years past.

This site may be only a part of the camp site on the island opposite it.

Pleasant Point Mounds and Site (SW.1/4 Sec. 23). On this property on the west shore of Pike Lake, and adjoining the Zurn farm on the south, was located the group of five Indian mounds described by J. M. LeCount in his *History of Holy Hill*, published in 1891. His figure of these shows three conical mounds of different sizes arranged in a line along the lake shore and about equal distances apart. The largest of these is at the eastern end of the line and the smallest at the western. Within a few feet of the latter was the head of a club-shaped linear mound with a long tapering tail its direction being north and south. Some distance in the rear of the three conical mounds was a long straight linear mound having an east and west direction. Mr. LeCount's brief description of these earthworks is as follows:

"The nearest mounds to Holy Hill yet discovered were on the north shore of Pike Lake, just five miles nearly due north. They were very prominent when the country was first settled, but they are now so completely leveled that none, excepting the very earliest settlers, could point out the place where they once stood. They are located on the south point of the north shore of the lake, just back of where the ice houses now stand, and where the bank rises abruptly from the waters edge to a height of forty feet. They were built like a fortification, enclosing about an acre of land. These ancient earthworks were in a good state of preservation as late as 1856, and in that year the writer made a survey of them.

"The accompanying plat, which is eighty feet to the inch, is a fair representation as they then existed. The large mound in the extreme southeast corner, was then fifteen feet high and sixty feet in diameter at its base. From its commanding position, standing on the top, every point of the lake could be readily seen. To the west were two smaller ones, the last being turtle shaped with head to the lake. From the tip of the turtle's tail a well defined wall of earth extended east to the steep bank of the lake's shore completing the enclosure."

The latter part of the description refers to the parallel

sided linear mound. In his description the writer fails to mention the small conical mound which stood between the head of the tapering linear (he refers to it as a turtle mound) and the lake shore.

This point of land has been graded and is now elevated but a few feet above the level of the lake. On it stood in 1919 two small houses both in a state of disrepair. Mr. John Etzel of Hartford, who resided here in his boyhood, states that the mounds were destroyed in about the year 1882. He collected many stone implements here and on the Zurn site. No information about the contents of the mounds appears to be available.

In the rear of the Point there is an area of low land. The site itself was covered with a rank growth of weeds at the time of our work in this region. Mr. John Hill states that an Indian grave was some years ago disturbed on the point, a short distance north of the former location of the Wisconsin Lakes ice house. A flint chipping site was located in the rear of the ice house.

Pike Lake Resort Burials (SE. $\frac{1}{4}$ Sec. 22). A short distance south of Pleasant Point, on the lake shore, there is a summer resort settlement consisting of a number of cottages and several saloons. Near the southern end of this line of cottages a number of Indian burials were disturbed some years ago in the digging of the foundation of Mr. John Hill's saloon. Mr. Hill informed the writer that the bones of these burials were in such a condition that little could be noted about them. The skeletons lay on their backs. No implements or ornaments accompanied any of these interments.

Mr. John Etzel dug up in about the year 1881 or 1882 several graves at a point just south of the saloon. One of these, at a depth of about $3\frac{1}{2}$ feet below the surface of the ground, was a skeleton placed upon its back. Laid across the top of this grave were several large limestone slabs. No implements or ornaments accompanied this burial. At a distance of about one hundred feet northeast of the saloon another similarly covered grave was disturbed in about the year 1917 in digging gravel for roadwork. It is not unlikely that there may be other Indian burials in the knolls among the cottages and in the rear of this resort.

Scattered fireplace stones and some evidences of flint working were found in an examination of the cottage gardens. Most of the unoccupied land about the resort was in pasture or thickly overgrown with weeds so that such evidence of interest to an investigator may have been obscured. There are several fine springs here one of which has been piped and is in use by the cottagers.

Eagle Point Site (NW.1/4 Sec. 26). At the foot of Pike Lake there is a pretty point known by this name because of its having been formerly the nesting place of an eagle. Its shores along its front rise twenty or more feet above the water. They are occupied by a number of attractive summer homes, among them the summer home of the well-known writer, Mr. Charles D. Stewart. This point was once occupied by a fine forest of tall trees. Its lake front is now screened by trees and shrubs.

Small numbers of Potawatomi Indians camped on this point in the early days of settlement of this region. Traces of early Indian occupancy consist of numbers of burned and broken hearthstones which are scattered over the cultivated fields in the rear of the cottages. Here numbers of flint points and several stone axes have also been found in past years. Mr. Stewart has a grooved stone axe which was plowed out along a road leading through a woodland pasture in the rear of the point.

On either side of the point there is a pretty bay. On the land about the Breidster farm house at the end of Eagle Bay, on the west side of the Point some flint implements have been found by the tenant farmer. At the end of the bay on the east side of the Point there was a small tamarack swamp which in 1919 had been largely cut away.

Hearth stones and a few flint implements have also been found in other fields under cultivation at this southern end of Pike Lake.

East Shore Sites (NS.1/4 Sec. 26 and SE.1/4 Sec. 23). The eastern shore of Pike Lake is much more attractive than its western shore. Stretching along it for nearly its entire length is a broad strip of meadow land and of pasture with here and there a cultivated field. In the rear of these lands rises a line of high, forest clad hills, Pulford Hill, the most

prominent of these, being, next to Holy Hill, the most elevated hill in this part of Washington County.

Mr. LeCount says of the Indians who formerly camped on this shore of the lake: "In June 1844 Charles F. Hecker settled on the land on the east shore of Pike Lake. At that time there was a large family [band] of Pottawatomies encamped near where he built his house. Old Kewaskum was their chief and they remained there a number of years after the white settlers came. They were on friendly terms with the whites." (p. 243)

"Old Kewaskum died near Mud Lake in the town of Shields, Dodge County, about the year 1857 and was buried on Indian, now Barbers Island, on Rock River, about four miles north of Hustisford. His body was dug up by a doctor and some others in the summer of 1878, and his beads, ornaments and other relics worn by him at burial are now in the hands of a party in Hartford." (p. 245)

These Indians are reported to have had a planting ground at Maple Point, on the northeast shore of the lake. This was near the site of the Brumm cottage. Several burials were also disturbed on this shore of the lake. Accompanying a burial on the Frank farm were several fine bone awls. An examination of the cultivated fields on the east shore of the lake disclosed many hearthstones. Many stone and some copper implements have been found in past years in the Maple Point fields. This shore of the lake was probably occupied by Indian camps long before the year 1844.

PIKE LAKE INDIANS

Mr. Elisha Amidon, who came to Pike Lake in 1846, informed the writer that the Indians camped on Pleasant Point, the Zurn farm and the northeast shore. They were "Winnebago" and lived in wigwams covered with rush matting. They had a few dugout canoes and flintlock guns. Fish were numerous in the lake and these they speared or caught with a hook and line. Some were smoked for winter use. Deer and small game were very plentiful then. They smoked kinnikinnik which they obtained from red willow twigs growing in the marshes, and dried. They erected crotched sticks at either end of the graves of their

dead and leaned basswood shakes against the pole laid across these. Their costumes consisted of buckskin shirts, leggings and moccasins. A strip or piece of colored cloth was tied around the forehead. Some wore a few feathers tied in the hair.

TRAILS

An Indian trail ran from the location of present Hartford over the hills to Pike Lake. Another ran from the lake southward in the direction of Holy Hill. Mr. Amidon stated that the Pike lake to Hartford trail continued on to the Rock River.

LOCAL COLLECTIONS

Mr. John Etzel of Hartford informed the writer that when a boy he collected Indian implements from the sites at the north end of Pike Lake. They were then so common that in a short time he could collect a basketful of flint and heavier stone implements. He sold most of his specimens to Mr. F. M. LeCount of Hartford. Some copper implements went to Frederick S. Perkins of Burlington, the then most prominent collector in Wisconsin. Mr. Etzel had in 1919 a small cabinet of specimens from Pike Lake sites which he prized. These included several socketted copper spearpoints and one of the spatula form. He also had a slate gorget with a single perforation.

The flint arrow and spearpoints which he had from Pike Lake were of the triangular, stemmed and barbed forms, common to many southern Wisconsin sites. A few were made of hornstone, quartz, and quartzite. One spearpoint was made of rhyolite and one of brown chalcedony. There were several flint perforators of different types. A bluish flint knife with straight, parallel edges, and an indented base was three inches in length.

Stone axes from Pike Lake are of both the form with the groove partly and completely encircling the poll. Celts in his collection were of the common triangular form. No potsherds, pebble hammer stones, or flint scrapers were in this collection.

Of the LeCount specimens many are reported to be in the Perkins collection in the Milwaukee Public Museum. Other

specimens from this region, collected by the late Walter C. Wyman, are reported to be in the Field Museum at Chicago.

It is not very likely at this late date that very many more Indian implements will be collected from the aboriginal sites at Pike Lake. It is very desirable that the few which are in local hands should be gathered into a local museum and there preserved for the interest of residents of Hartford and the region surrounding the town.

ARCHEOLOGICAL FIELD METHODS IN WISCONSIN

W. C. MCKERN

Archeological research in Wisconsin had its conception in the interest of unskilled collectors and enthusiasts. The relic collector first brought to our attention the curious and interesting artifacts which survive their prehistoric makers to tell of their culture, their ways of living. To a like degree, we owe much of our knowledge of the former distribution and peculiarities of effigy and other mounds to early enthusiasts. Many of these monuments, erected by the first citizens of what is now our state, have been entirely obliterated. We know of them solely through these early records.

Naturally, a lot of speculation followed the repeated discoveries of objects and structures of which the purposes were not obviously apparent. Questions arose as to the authorship, purpose, method of fashioning and age of these prehistoric products. Much of this speculation was quite independent of supporting facts, but in many instances keenly rational. Finally, men began to recognize problems and to work definitely toward the solution of those problems. Collections of specimens began to be studied, not as relics, attractive because of their oddity, rare occurrence, beauty, abnormal size, or other separately considered peculiarities, but as specimens collectively representing unknown or little known primitive cultures. From that time on, the value of a specimen has come to depend more and more upon the extent of the information which it promises to give regarding the manner of life enjoyed by its maker or ancient possessor.

The importance of each new specimen found is that it has a tale to tell. It makes no difference to the true student whether it be smoothly fashioned of rose quartz or roughly modeled in clay, save in so far as its peculiarities contribute to the accumulating evidence on the culture it represents.

The scientific attitude is coming more and more to the front, the attitude which demands proof, and ample proof, of every conclusion, and accepts no theory so permanently that it can not be easily cast off, like a threadbare garment, when it has ceased to agree with the ever growing list of known facts. Such an attitude deprives of its value the formerly highly valued unique specimen, for no unique specimen can prove anything, since it lacks supporting evidence.

All this has resulted in a cry for more evidence and greater care in collecting evidence. The importance of detailed accuracy in field and laboratory methods is recognized by students everywhere, both inside and outside the state. The results of our work will be critically judged according to our use of recognized, standard equipment, and our procedure with that equipment.

There was a time when the local archeologist's field equipment was identical to that of his contemporary delver in the soil, the ditch digger; namely, the pick and shovel. Later he took unto himself the whiskbroom and made of it, in some instances at least, a sort of sacred badge of profession. The pick, shovel and whiskbroom persist in their usefulness to the archeologist, but they now find themselves associated with a numerous and oddly assorted lot of companion implements.

Of course, the equipment needed depends largely upon the job contemplated. For the average field expedition, however, a considerable list of apparatus is needed. Accurate mapping, charting and measuring, both vertical and horizontal, can not be expected without the use of transit, rod and tape. Men have performed creditable work in the American field without such equipment, but they were working under an unnecessary handicap which it seems only wise to avoid. A loose-leaf notebook or cross-section paper and a portable drawing board, with such simple ac-

cessories as thumb-tacks, pencils and a graduated rule, facilitate the accurate recording of all measurements. The various sheets of data so recorded can then be arranged in the loose-leaf notebook in a purposeful order best suited to simplify further study. One of the most essential elements of recording apparatus is a good camera.

The pick and shovel, for rough, preliminary work, and the trowel, spatula, whiskbroom and small, bristle paint brush, for detailed and finishing work, are all important excavating implements. A set of wire screens, varying in size of mesh from coarse to relatively fine, is important in certain kinds of work, as in excavating refuse heaps. The use of plaster of Paris and water-glass renders possible the preservation of fragile objects that otherwise could not be removed, or at least the preservation of casts of such specimens.

This list does not pretend to be exhaustive, but includes some of the principal elements of needed field equipment.

The first task confronting the field student is the proper mapping of the site of operations, and the charting of all pertinent surface features, such as mounds, enclosures, and the occurrence of workshop or campsite materials, taken in their relation to the natural environment. The charting of mounds must take into consideration vertical as well as horizontal measurements and outlines. It is practically impossible to do this accurately without the use of the transit.

Two methods of exterior mound survey are worthy of note here. One of these involves the division of the entire mound surface into squares of equal size, of conveniently small dimensions, and graphically recording these squares and their exact relation to the lateral outline and vertical contour of the mound. The second method is quicker and perhaps just as accurate. It is particularly applicable to the excavation of effigy mounds. An initial line is directed to longitudinally bisect the body of the effigy, and staked out at regular intervals of from five to ten feet, depending upon the size and peculiarities of the mound. Similarly segmented lines are extended from this initial line to the extreme margins of all outline features, such as legs, tail, head, ears and so on. These secondary lines are disposed

either at right angles or, at least, accurately measured angles to the initial line. Such lines may be designated as skeleton lines, since they closely correspond in position to the major boney parts that the represented animal would possess. From each of the equidistant points staked off on the skeleton lines, the rectangular distance to the adjacent margins of the mound outline is next measured. Each measurement is graphically recorded as made, and the elevations of all points likewise determined and indicated on the chart.

Mound excavation should be attempted only after two divergent methods have been carefully considered and balanced against each other. A removal of the entire mound has the advantage of detailed thoroughness, resulting in a complete record of mound contents. On the other hand, such a procedure permanently destroys the mound. The trenching method involves the risk of missing some of the data which the mound contains, but renders possible the restoration of the mound to its original external appearance, after the excavation is completed. If it is at all desirable to preserve small artifacts in museums and private collections, in order that they may be available for study to those interested of this as well as future generations, it seems equally desirable to preserve at least a representative lot of these larger artifacts, the effigy mounds. A paucity of time and money available to the average local student also favors the trenching method, since a relatively large number of mounds can be carefully trenched with the same expenditure of time and money required for the complete removal of a few mounds.

The disposition of trenches depends altogether upon the shape of the mound selected for excavation. Small conical mounds can be adequately examined by means of a single, centrally transverse trench. Years of investigation in Wisconsin have determined the fact that the internal features in effigy mounds occur, regularly, at certain focal points determined by the intersections of the major axes of body, limbs and other appendages. Therefore, trenches should be so directed as to cover these points.

Unless one be the proverbial seventh son of a seventh son, that which lies buried immediately below the shovel

point of the excavator remains a mystery until actually uncovered. It is therefore advisable to exercise an intelligent degree of caution at all times. Any indication of the unusual, even an unexplainable discoloration in the soil, should be the signal for discarding heavy implements and resorting to the use of trowel and spatula. This renders excavation a slow, tedious process, but protects fragile features and permits the observation of data that otherwise would never be noticed.

It is a universally accepted rule among archeologists that all specimens and other features should be isolated in situ, cleaned but left in the exact position in which they are found, until they have been photographed, measured, recorded on the mound charts and studied from every profitable angle. This can only be done through the use of the more delicate implements, such as the spatula, whiskbroom and paint brush. It is advisable to be equipped with a regular form sheet which specifies the various items of information required concerning each specimen or other feature encountered. This should be filled out while the subject is exposed in situ, or while being removed from situ, as conditions may require.

Burials may primarily be classified as (1) intrusive—buried after the mound was completed, (2) inclusive—buried during mound construction, or (3) precedent—occurring at the mound site before the mound was built, and independent of the mound in so far as there is any evidence to show. These types may be recognized only through the most careful observation. If the walls of the old burial pit extend to the top of the mound, the burial is intrusive. If they extend only part way to the mound surface, or do not occur at all, the burial is inclusive. If there is a line of demarkation between the surface of the grave filler and the bottom of the mound, the burial is precedent. The importance of determining the type of burial, according to this classification, can not be exaggerated, since the peculiarities of a burial have no certain bearing upon the culture which produced the mound unless it be an inclusive burial.

Such detailed care in investigation may seem to involve a great deal of wasted effort, but one can never tell what the results of the work at hand may be until it is too late

to change methods. Not only does the careless investigator miss a great deal of important data, but he also subjects himself to the severe censure of more conscientious field students. To these he appears as a vandal, since his inadequate methods result in the destruction of evidence, possibly of a nature that would greatly contribute to our knowledge of the culture represented.

PIERCE COUNTY TRAILS.

Franklin Tomlinson

Throughout the entire region of southeastern Pierce County, as in many other sections of Wisconsin, no maps has ever been prepared and no records made of the locations and the routes of the many old Indian trails that once criss-crossed the region lying between the Mississippi and the St. Croix Rivers on the west and northwest and the Chippewa on the east. In certain localities the former existence of the old trails has become legendary and the locations lost. In other certain localities long sections of some of the present public highways follow the exact lines of some of the historic old trails.

THE ST. ANTOINE TRAIL.

From the Southeastern Shore of Lake Pepin to Kinnickinnic and St. Croix Rivers.

This trail led from near the mouth of Bogus Creek on the southeastern shore of Lake Pepin, in Pepin County, past the site of the historic old (French) military post, Fort St. Antoine, and ran in a northerly direction across the hills and entered Pierce County three fourths of a mile east of Lund, through Section 22, of Maiden Rock township, and continued in a northerly direction through Sections 14, 11 and 2 to where it crossed to the east bank of Plum Creek a short distance below the mouth of Double Creek, (a small tributary of Plum Creek) followed up the east side of Plum Creek and crossed into Union township through Section 34, continuing a northerly course it again crossed to the west side of Plum Creek in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec-

tion 27*, and across a part of the SW $\frac{1}{4}$ of Section 22 *2. Here it swung to the northwest and followed up the Rush Coulee dryrun, a diagonal course across Sections 21, 17 and 7, here it turned due west into Salem township through Sections 12, 11, 10, crossed the Rush River near the middle of 9 where it again swung northwest, a diagonal course across Sections 8 and 7, through the NE $\frac{1}{4}$ of Section 1, Hartland township and Sections 35, 27, 21 and the SW $\frac{1}{4}$ of 16, Ellsworth township *3.

Lake Pepin-Eau Galle-Menomonie Falls Trail.

This trail, from near the mouth of Pine Creek, on the eastern shore of Lake Pepin, just above the Maiden Rock Point, in Maiden Rock township, followed an easterly course up the Pine Creek Coulee through Sections 23, 24, 19, and swung north in the NE $\frac{1}{4}$ of 19, continued north through 18, northeast through 8 to the NW $\frac{1}{4}$ of 4 where it forked. Here the south branch swung east and struck the headwaters of Double Creek in the NE $\frac{1}{4}$ of 4*, thence it followed down Double Creek, a southeasterly course across Section 3 and on to where it united with, and also crossed the St. Antoine trail in the south half of Section 2 *2, at the place where the St. Antoine trail crossed the Plum Creek. From here it ran in a southeasterly course down the Plum Creek valley and crossed into Pepin County in the SE corner of Section 12.

The other branch ran north and crossed into Union town-

* At this place is evidence of several large (French) posts. The basement excavations are still plainly visible and can be seen from a distance. Evidence of five old habitations can be seen, the largest of which is 45 feet long by 15 feet in depth into the base of the hill. All of these old habitations seem to have been of the dugout or half-dugout type. All trails in this section of Pierce County seem to have led to this site or past it. A large aborigine village site is on the terrace, just west of the post sites and several large mounds occur in the near vicinity. Village site and mounds in Wis., *Archaeologist*, April and July, 1925.

* 2 Through Moser Park, some six to eight rods west of the pits at this place. *Wis. Archeologist*, April, July, 1925.

* 3 That part of the old St. Antoine trail from where it entered Section 1, of Hartland township to the SW $\frac{1}{4}$ of 16, Ellsworth township, a distance of some seven or eight miles, is now a part of Highway 13, and in the old days was variously known as the "Old State Road," "The Diagonal Road", the Seeley Road.

* Formerly an aboriginal village site on this place, a few faint traces of which may still be seen. The site was still occupied by a few Indians as late as the year 1866 when the land was first being brought under cultivation. Many chipped stone and copper implements were found here.

* 2 In the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 2 was a large camp site where a few families of Indians had their wickiups for the last time during the winter of 1865-66.

ship in Section 33, swung east in the NW $\frac{1}{4}$ of 33, down the Linder Coulee into the Plum Creek valley and united with the St. Antoine trail in the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 34 *3, thence it followed the St. Antoine trail northward across Section 27 and to the SW $\frac{1}{4}$ of 22 to where a part of the village of Plum City now stands. (Moser's Addition) Here it parted from the St. Antoine trail and ran north and easterly through what is now the main part of the village of Plum City and crossed to the east bank of Plum Creek* in the NW $\frac{1}{4}$ of Section 22. Here it divided, one branch ran in a northeast direction across Section 14, angled across a part of the NE $\frac{1}{4}$ 13 and the SE $\frac{1}{4}$ of 12 where it crossed into Pepin County, continuing northeasterly over what is now the "Gap Hill" route (the old Lake Pepin-Eau Galle-Menomonie Falls trail) to Eau Galle, Menomonie and the Red Cedar regions.

The other branch turned west and then north up the Plum Creek valley across Section 15 and to the forks of Plum Creek in the NW $\frac{1}{4}$ of Section 10 *2. Like the Plum Creek at this place, the trail also forked. One branch followed the west prong of Plum Creek westerly across the north end of Section 9, thence west through 5 and 6 and entered Salem township in Section 1 and continued a nearly due west course across the north end of Salem and united with the St. Antoine trail in the southeast corner of Section 1, of Hartland township. The other branch followed up the east fork of Plum Creek in a northerly direction through Section 3, here it crossed into Rock Elm township, thence it ran an angling course across Rock Elm township and continued northerly to the upper stretches of the Eau Galle River in Spring Lake township.

Plum Creek-Porcupine Trail. This trail led from the Dead Lake Prairie and Porcupine Creek, in Pepin County, westward and entered Pierce County through Section 25, Union township, thence it ran in a northwesterly direction

* 3 On the spot where the John Studer farm buildings stand.

* The trail ran just east of, and crossed the Plum Creek about 20 rods northeast of the village site in Schneekloth addition to Plum City. Vil., site in Wis. Archeologist, April, July, 1925.

* 2 In the early days a fine spring of water gushed from under the bluff at this place and formed a small pond, teeming with brook trout. Near-by was evidence of a village site and several large mounds. Evidence of village site and mounds has long since been obliterated. The spring has dried up and the once beautiful trout pond is now but a mire hole.

across 26 and united with the St. Antoine trail in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 27*.

ARCHAEOLOGICAL SURVEY OF ILLINOIS

PAUL S. MARTIN

No thorough nor consistent efforts have ever been made to learn the Archaeology of Illinois. The department of Anthropology at the University of Chicago has undertaken, therefore, to recover in a systematic way, in so far as is possible, this fast disappearing and yet interesting record of pre-historic Illinois.

It expects, first of all, to make a thorough archaeological survey of the state—mapping such mounds and fortifications that still exist and attempting also to learn as much as possible about mounds that have already been obliterated. It is well known that many mounds have unconsciously been completely destroyed by the cultivation of land—and that each year witnesses more destruction. Therefore no time should be lost if we hope to make as complete a map as possible. With the aid of this map and by systematic scientific excavating we may soon expect to tell more or less definitely the story of the past.

Second, the department hopes by the study and photographing of collections, now in the hands of local collectors, to be able to trace the culture or cultures which flourished in this region. For example, we know fairly certainly that there was in most liklihood a northward extension of the Hopewell culture of Ohio and that this culture passed through Illinois into Iowa, where it is just coming to light. We realize then that only careful searching of mounds, excavating of and study of collections would reveal such a fact. When sufficient excavations have been made and a great many collections examined and indexed, we may be able to differentiate the implements, pottery, and general artifacts used by the mound builders from those used by the earlier or later Indians.

Third, since the department is most anxious to train students by permitting them to participate in actual field

* It crossed to the west bank of Plum Creek and united with the St. Antoine trail right at the old post sites located at this place.

work, it was felt that here was an excellent opportunity to combine the performance of a necessary piece of work with the training of students.

With this end in view—a truck was purchased and fitted out as a headquarters and camp for the students. It was deemed wisest to start in the northwest corner of the state—near Galena and to work southward and eastward—doing township by township until a county was completed. The students were given to understand that each locality should be thoroughly exhausted before a new one was tackled. Their instructions were:

1. To find all mounds now existent and map them in such a way that they could be “spotted” on a county or state map.

2. To examine all local collections so far as was possible—to study and photograph them so that a complete record for that region might be gained.

3. To do such digging as was necessary, i. e. to establish negatively or affirmatively whether a “mound” was a mound.

4. To leave no enemies behind—but be friendly to everyone—to interest people in our work and to educate them to protect the mounds from looters—who merely destroy and do no good.

These instructions were carried out as far as possible. Over 1,200 specimens were studied in a detailed way and an excellent photographic record was made to supplement this study.

Over 450 mounds were located, surveyed and placed on a large county map. Four-fifths of the mounds were conical or round mounds—ranging in size from ten feet in diameter and one foot in elevation to one hundred feet in diameter and fifteen feet in elevation. The remaining one-fifth was divided among linear and effigy mounds. Ten effigies in all were found—a bear, horse (?), serpent, bird, and possibly a lizard. Most of these tumuli were near water courses—but one interesting group—that which contained the serpent—was far removed from any water courses in remote time.

In September all the students that were available were brought up to Galena and set to work to do actual excavat-

ing. Before work was started, however, there was held a general meeting to decide by what methods the mounds should be dug. Undercutting was tried and found to be undesirable in that region where burials and artifacts may be situated at any level. Trenching was also given a trial but used only when time began to get short. The best method for the excavation of conical mounds appeared to be the removal of dirt in horizontal and vertical squares—staked out beforehand by means of a transit. A clean “face” or wall from the floor upward was maintained as work progressed into the mound—so that the workers could see at any time banding or stratification that might appear—or signs that assured the finding of burials or artifacts.

Altogether only seven skeletons were encountered.

1. Three individuals composed a bundle burial—in which were found seven pierced bear canines associated with the atlas vertebrae of a child.

2. One single bundle burial—no artifacts.

3. In a long mound were found three flexed burials—one of which bore three large limestone boulders—one on the head—one on the pelvis and one on the feet. This burial was encased in plaster paris and brought back to the University—where it is being chipped out so that it may be placed on exhibition.

Altogether only ten pounds were excavated due to lack of time and to bad weather—but these were done carefully and slowly so as to give the students training in proper technique.

Not all of Jo Daviess County is yet surveyed nor dug—but it is hoped to put even a bigger force in the field next summer for a longer time—so as to complete that section, if possible. One thing, at least was shown by this summer's work—namely that there are more mounds in Illinois than was imagined and that a good many years will be occupied in doing up this job properly.

During the academic year the study of collections is to be continued and students are devoting time to organizing material obtained as well as the examination of published accounts of other or similar work.

For a short period of the summer another expedition was maintained in and around Kankakee. Many mounds were observed and several collections intensively studied.

THE CHARLES H. HALL COLLECTION

CHARLES E. BROWN

One of the most interesting of the archeological collections made in the region of the Four Lakes at Madison was that of the late well known collector, Dr. Charles H. Hall. Dr. Hall was from the nineties until after the beginning of the twentieth century a prominent physician of Madison. He had a quite large country practice and this enabled him to obtain from original finders many of the choice Indian artifacts in stone and metal which they plowed up on their farms located about the local lakes. Thus he succeeded in assembling in the course of years a collection which in the year 1900 he deposited in the State Historical Museum.

After being thus displayed for a number of years Dr. Hall disposed of to another collector the small number of native copper implements which it contained. This is to be regretted. After his death, in South Dakota, several years ago, his heirs decided to dispose of the collection. This has now been accomplished by its purchase by the Henry P. Hamilton Estate and it is now being catalogued and added to the largely Wisconsin collection bequeathed by Mr. Hamilton to the State Historical Society in 1919.

The Hall collection, although not a large collection, is a more or less carefully selected one. It contains in all some 650 specimens of various classes. Some of these may be briefly described.

The flint implements in the collection include fine series of arrow and spearpoints, scrapers, perforators and knives, attractive to the museum visitor not only because of their variety and beauty of form, but also because of the beauty of the material of which many of them are made. Among these are quite a few of the large, broad heart-shaped spearpoints so prized by collectors. Among the arrowpoints are a fine series of the very attractive triangular points with notches and indented bases more or less peculiar to the site of the old Indian stockade-protected site at Aztalan. No Wisconsin collection possesses a better lot of these. There is also an exceptionally fine series of the tri-

angular arrowpoints with serrated edges and truncated barbs, so rarely found on southern Wisconsin Indian village sites, and more commonly obtained in parts of Illinois. Some of these have been described and illustrated in a previous issue of *The Wisconsin Archeologist*.

The collection of flint perforators is one not excelled for variety of form, size or workmanship in any local collection. Wisconsin quartzite knives, arrow and spearpoints of a number of different colors from white and light brown to red and orange-brown, make a fine addition to those already in the Hamilton collection, which thus now nearly equals in the character of its quartzite pieces the W. H. Ellsworth collection at Milwaukee. A flint chisel, a flint celt, and a flint saw, and a hoe and spade of the same material are among the unusual flint pieces among the Hall specimens. The latter two are of the types so common in southern Illinois and only a few of which appear to have come to Wisconsin in the course of early aboriginal trade.

Among the heavier stone artifacts are a series of five of the well-made grooved oval sinkers occasionally found on Four Lakes village sites. There are several grooved stone clubheads and a grooved maul, the latter coming from North Dakota. Among the hammerstones are several fine examples with finger holds at the sides. Of stone balls there are several nice specimens. Three sandstone arrow-shaft grinders are interesting pieces. A single triangular stone adze has a piece broken off its pointed extremity.

Eighteen good stone celts are of various sizes and forms. All are polished. Of fourteen grooved stone axes all are fine specimens of the Indian axemaker's art and several are of uncommon size and weight. Fluted stone axes are represented in this collection by four specimens of only average workmanship. One has a fluted poll. A single double-grooved axe is a rarity in this region.

There are eight discoidals in this collection, these ranging in diameter from $1 \frac{5}{8}$ to $2 \frac{3}{4}$ inches.

Of ornaments and ceremonials the collection contains a number of interesting specimens. A lead turtle is the best specimen of these rare amulets as yet found in Wisconsin. Its head and neck are upturned and its four legs bent under

it. Most lead turtles found in the state up to this time are small and rather poorly fashioned flat specimens.

A single birdstone is without eye disks and is made of banded slate. This comes from the Wisconsin River region in Roxbury Township, across the river from the early Sauk village at Sauk City. There is a cone made of banded slate and a hemisphere made probably of quartzite. There are five plummets found together in constructing a Madison sidewalk. There are six gorgets of several forms and a similar number of banner stones. Of the latter the finest specimen is a large example of the so-called butterfly form, made of porphyritic syenite. It has the added interesting feature of being undrilled. An amulet is interesting because of the number of its perforations. There are three boat stones, all good specimens. There are several pipes of Siouan, Micmac and other forms. Two large stone tubes are made, one of catlinite and the other of steatite.

There are in the collection many other specimens of exceptional interest to the archeologist which it is not desirable to describe at this time.

It will be a pleasure, we are assured, to students of Wisconsin Archeological history to note that through its purchase by the Hamilton Estate another interesting Wisconsin collection is preserved to students and the public.

INDIAN CAVE HABITATIONS AT MAQUOKETA, IOWA

FRANK E. ELLIS

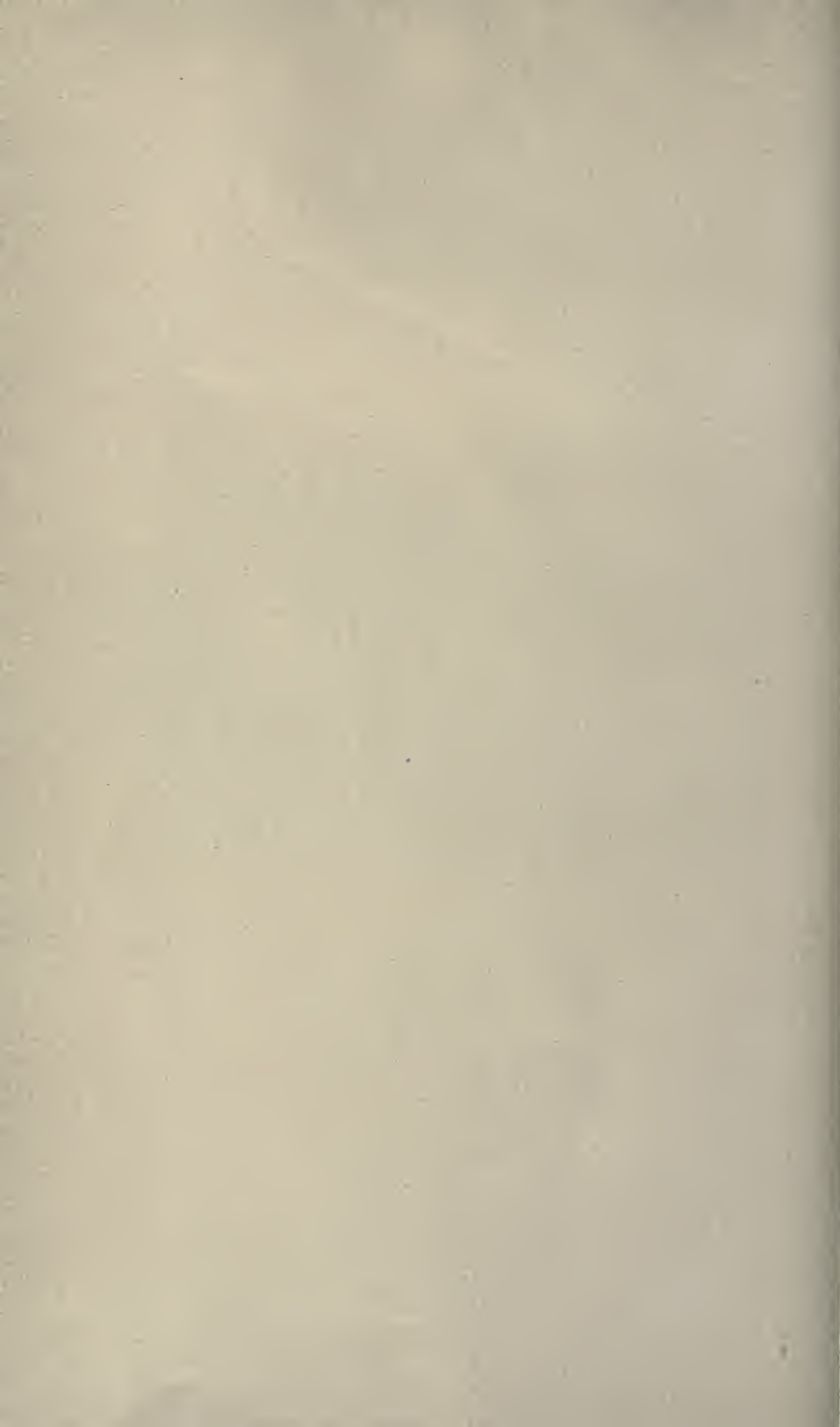
I was born on a farm in the beautiful valley of the Maquoketa River and from my earliest recollection carried the strange idea that the many overhanging ledges and caves in our vicinity had been inhabited by ancient people. My father being a collector of Indian stone age implements finally adding fossils which are very numerous in the local limestone, to his already large collection. So I was often sent to the stone quarries to work out specimens for his own collection and for exchange with other collectors for fossils from their regions. It was on one of these trips to the bluffs that I first proved my theory that the caves had

been used as homes. After filling my little basket with fossils, I picked up a shovel and crawled up the side of the bluffs to a large cave and started digging down into the old floor of it. About two feet down I uncovered three large rocks, these I rolled out over the edge and under them was a small skeleton and on close examination I found it to be the skeleton of a very small child. With it were fragments of pottery, a three prong deer horn and a number of pierced periwinkle shells. These I carefully sorted out of the ashes and dust and although I removed all of the debris from the cave that was all of interest that I could find. I was about 14 years of age then. Years afterwards when I had become established in business for myself and my family was pretty well grown up, I discovered that my youngest son was the third generation of our family that had the collecting habit. He insisted on my taking trips to the bluffs with him and we then started a real search for pre-historic homes and we have been wonderfully successful. In four years we have made a collection that has a real reputation. We have located old bluff homes in great numbers and we have skeletons from the little babe I first found up to very old people and some of them in fine condition.

The most interesting cave habitation we have located lies on the bank of a creek about two miles from my home in Maquoketa. This is a rock-shelter, the bluffs being about seventy-five feet high and leaning out at the top so that there is a long stretch of dry protected area at the base running parallel with the creek but high enough up to be above high water mark. This looked promising to my son and myself so we started excavating one morning in March, 1923. The floor was so dry that the frost had no effect on it so we could dig it as easily as if working in road dust. We did not work long before we discovered worked flint, clam shells, broken pottery and split animal bones. Before we stopped work that evening we had secured the best human skeleton we have. This man had been buried next to the bluff. We uncovered him sitting upright on his knees, head erect with the lower shell of a turtle placed on top of his skull, surrounded by small flint arrows, and small clam shells. Part of a large earthen pot was near the skeleton and three long narrow rocks had been placed over him.



INDIAN ROCK SHELTER, NEAR MAQUOKETA, IOWA



During our work in this shelter, which took twenty days to complete, we found parts of four other human skeletons but badly broken up. One was that of a child of about four years of age. With the complete skeleton was a small sharp-pointed hammered copper tool, a few bone awls or needles, a necklace of small bones cut off at the ends, some very large beaver teeth and one perforated bear tooth.

During twenty days we removed about a wagon box full of split and broken animal bones, most of which were deer, elk, some buffalo, and a number we were unable to classify. We kept about a bushel of these, together with about a bushel of broken pottery. We also kept a large number of the clam shells of various sizes, some snail shells and many arrows, hammerstones and other flint tools. In all of our digging we have never found a stone axe although the farmers plow out many of them in Jackson county. We have had a fine opportunity to study the domestic life of these ancient folks in this shelter. One of the outstanding features of their habits was that they had no idea of cleanliness or sanitation. In some places it was necessary to dig down as deep as six feet before striking the old original stone floor. This whole depth was nearly all wood ashes as dry as if taken out of a modern fireplace. These ashes were filled with chipped flint, clam shells, now and then a good arrowpoint, pieces of pottery, some human bones and thousands of broken up animal bones, also a few bird bones. We worked very carefully using small hand tools in our operations and running all of the ashes through a sieve. Our work extended over an area about eighty feet in length and from six to eight feet in width. In this long trench we uncovered three old lime rock fire places. That is the rocks had been placed in circles about two feet across and had been used until the stone was red and quite soft. The interesting thing about them was that as the floor had raised from the ashes taken out and the split animal bones and flint that were thrown on the floor from day to day these fire places were built up to keep level with the floor. The fact that these bones were cleaned of their meat and marrow and dropped right in their home would suggest that these ancient rock dwellers had no distaste for disagreeable odors. These people buried their dead right in their dwell-

ings. Among the belongings of this old fellow was a small fresh water pearl and a bead made from a very small sea shell. My son Francis, who is now seventeen years of age, always accompanies me in our search for rock shelter homes and we have many happy holidays together in riding out our mutual hobby. Last year I had the opportunity of making quite a study of the Cliff Dwellers of Colorado and Utah. From a careful comparison of their customs I am impressed with the idea that they are the same kind of Indians that we dig out of the bluffs here at home. They used the yucca plant of their locality for their weaving and basket-making just as our local rock dwellers used hemp. Many of the pottery fragments we get show that a hemp basket was woven and the clay placed in it and then baked. Not all of our pots were made that way however. In most of the localities where we have worked are places that have not been cultivated by the land owners where the old patches of hemp are still growing.

ARCHEOLOGICAL REMAINS IN KANABEC COUNTY, MINNESOTA

P. G. NICHOLS

Having spent considerable time in the past three years in archaeological field work in Kanabec County, Minnesota, I thought it might be of interest to the readers of "The Wisconsin Archaeologist" to hear of the mounds and other Indian landmarks located here.

I am sorry to state that to the best of my knowledge there has been no effort on the part of the community or the State to preserve any of these ancient landmarks in this County.

The mounds do not run very large and all are conical in shape with the exception of a few which are elongated, effigy mounds are unknown here.

Between Fish and Devils Lake on the S. E. $\frac{1}{4}$ of section 33, T. 39-R.24, there once existed seven or eight mounds but all have been obliterated through field cultivation.

Near the east shore of Fish Lake, on the S. W. $\frac{1}{4}$ of section 34, T. 39-R.24, there are six or seven mounds and

others have been destroyed through the construction of a road.

On Lot No. 3 of this same section there were once around seventy mounds but at the present time only one exists. It is 72 feet in diameter and 13 feet in height.

There were also about fifty mounds on the east side of Ann River on the N. W. $\frac{1}{4}$ of this same section but no trace is left of them due to cultivation.

There are a few mounds along the river for a distance of possibly a mile below, probably fifteen in all. I have not been able to ascertain the exact number.

On the S. E. $\frac{1}{4}$ of section 23 T. 39-R.24 there once stood the largest mound group in this County consisting of over one-hundred mounds but some have vanished through long years of wear by the destructive plow. Seventy-five or eighty that were more favored still stand on virgin soil as sentinels to remind one of the former presence of the aborigines. The largest mound of this group stands about ten feet high and is about forty-five feet in diameter, another is a little over one-hundred feet long, fourteen feet wide by four or five feet high.

There were a few mounds where the village of Brunswick now stands, in T.38-R.24, but all have disappeared.

Located on the east side of Knife Lake, on the S. E. $\frac{1}{4}$ of section 2 and the N. E. $\frac{1}{4}$ of section 11, in T.40-R.24, are eleven mounds. I have been informed by a friend that he and several of his friends sunk pits in them and found quite a bit of pottery but I am unable to locate any body that preserved any of it.

I have explored three different mounds that had been unmolested and have found no artifacts, only bones which were in a very decayed condition. I was able to save the upper jaw and teeth of one of the skulls.

On the S. E. $\frac{1}{4}$ of the S. W. $\frac{1}{4}$ of section 24 T.39-R.24, there is what appears to be part of the remains of an old fort claimed by some to be the site of old Fort Radison. From what I have read of Fort Radison and the country surrounding it the remains correspond very closely. There was a large Indian cemetery here, also a village site and many implements have been collected here.

Totaling up the mounds that existed in this County a few

years back I think I am conservative in stating there were at least two-hundred and sixty in Arthur Township, ten in Brunswick Township, and eleven in Knife Lake Township.

I have located in Ann Lake Township one camp or village site, in Arthur Township three, and in Knife Lake Township, one.

There is to my knowledge one cemetery in Grass Lake Township, four in Ann Lake Township, one in Knife Lake Township and two in Arthur Township.

The relics found here are crude generally speaking. A few arrow and spearheads found are very symetrical. A few fine stone pipes have been found but I know of only two stone ceremonials or ornaments being found and they were poorly made.

In collecting many potsherds on camp and village sites I find they have a large variety of markings and are shell-tempered, with an average thickness of a little less than a quarter of an inch. I have seen only one whole pot or jar that was found in this County and that was found last summer at Knife Lake. It was about eight inches in height by three inches in diameter and was ornamented with raised human figures all around the sides. It was very symetrical.

There is no doubt that many Indian implements will come to light in the years to come as the land is cleared. This County is now largely wild timber land.

ARCHEOLOGICAL NOTES

The December 20, 1927, meeting of the Wisconsin Archeological Society was held in the trustee room of the Milwaukee Public Museum. Vice President Huron H. Smith conducted the proceedings. There were fifty-five members and some visitors in attendance. Secretary Brown made various announcements of interest. Mr. W. C. McKern, curator of the department of anthropology of the museum, delivered an address on "Explorations of Indian Mounds in Green Lake County", in which he presented the results of some recent excavations in that region. This address he illustrated with a fine series of lantern slides. Mr. Schœwe, Mr. Brown and others participated in the discussion which followed.

An exhibit of interesting archeological specimens from the region about Watertown were made by Mr. T. M. Lewis.

At the meeting of the Executive Board, held before the regular meeting, Mr. Paul O. Hilmers, Milwaukee, and Mr. John B. McHarg, Appleton, were elected members of the Society. Mr. John Goslyn, Milwaukee, and Mr. Gabriel H. Melotte, Ft. Atkinson, both of Wisconsin Menomini descent, were elected honorary members.

President George A. West conducted the meeting of the Society held at Milwaukee on January 17, 1927. Sixty-five members were in attendance. Mr. Leland R. Cooper gave an illustrated address on "The Indian Remains of the Lower Pine River Valley", detailing the results of recent investigations conducted by himself in that interesting part of Richland County. He exhibited specimens collected from the Indian village sites at old Richland City. Additional information about this region and of two of its former veteran collectors, Ezra H. Stiles and Paul A. Seifert, former members of the state society, was presented by Secretary Brown. Dr. E. J. W. Notz and Mr. E. F. Richter also discussed the address.

Mr. West gave a short talk on Wisconsin Indian pottery pipes. Mr. McKern exhibited two of these, obtained from Indian mounds. Mr. John Goslyn told of some of the smoking customs of the Menomini Indians. Interesting exhibits of specimens were made during the meeting by Mr. Alton K. Fisher, Mr. Oskar Korthals and Mr. Kermit Freckman. It was announced that Mr. Emil E. Steene, Mr. William Kranslover and Mr. Edward Grobben had been elected to membership by the Executive Board. The recent death of Mr. Herman C. Blatz, Santa Monica, California, a member, was announced.

A meeting of the Society was held at Milwaukee on Monday, February 15, 1927. Vice President Charles G. Schoewe was the presiding officer. Fifty members and some visitors were present. Secretary Brown reported the election to membership, by the Executive Board, of Mr. Charles Tribe and Mr. R. N. Leavens, both residents of Milwaukee. The death of Mr. Walter C. Wyman, New York, for many years a member of the Society, was announced. Dr. Frederick Starr, Seattle, Washington, the distinguished American anthropologist, was elected an honorary member of the Society, he having been an active member for many years, until his removal to the West Coast.

A resolution supporting the Portage Kiwanis Club in its proposal to acquire for the city and restore the site of Old Fort Winnebago, one of the frontier forts of the state, built in 1828, was adopted. The Society also expressed itself as favoring U. S. Senate Resolution 341 in which the Committee on Indian Affairs is directed to make a general survey of the condition of the Indians, and the relation of the

Bureau of Indian Affairs to the persons and property of the Indians and the effect of the acts, regulations, and administration of said Bureau upon the health, improvement and welfare of the Indians, and to report on the same. It was desired that the support of U. S. Senators Lenroot and La Follette of this resolution be requested.

The business of the meeting being closed the members adjourned to the Museum where the balance of the evening was spent in viewing Indian archeological and ethnological collections and groups under the direction of Mr. McKern. Mr. Schoewe exhibited some interesting Potawatomi Indian specimens from northeastern Wisconsin.

A joint meeting of the Wisconsin Academy of Sciences, Arts and Letters, The Wisconsin Archeological Society and the Midwest Museums Conference will be held at the University of Wisconsin, Madison, Wisconsin, on Thursday, Friday and Saturday, April 7, 8 and 9, 1927. The members of the three societies are cordially invited to attend the meeting. The Midwest Museums Conference will hold a special meeting in the auditorium of the State Historical museum on Thursday afternoon, April 7 and the joint meetings will be held on Friday and Saturday, April 8 and 9.

A non-technical program of general interest is being arranged for the joint meetings on Friday and Saturday and several papers of this character have already been promised. Members who desire to have technical papers appear on the printed program may do so by having them read by title. The titles of such papers should be sent to the Secretary not later than March 10.

The Central Section, American Anthropological Association will be held at Chicago, on March 25 and 26. Secretary-treasurer George R. Fox, Three Oaks, Michigan, has sent out a notice of the meeting in which he requests the titles of papers to be presented at this time. Every effort is being made to make this meeting as interesting and eventful as the meeting held at Columbus, Ohio, last year. Mr. Fox also asks the assistance of present members in enlisting persons interested in anthropology in joining the mid-west section.

The Wisconsin Society, Friends of Our Native Landscape, held its annual meeting and banquet at Madison, on Thursday, February 10. The banquet was held in the Men's Refectory at the University of Wisconsin. Members of the state legislature were the guests of the Friends at this dinner. A fine speaking program followed the dinner the principal speakers being Mr. Glenn Frank, president of the University, Governor Fred R. Zimmerman, Senator Markham of Horicon, and Mr. Jens Jensen, national president of the Friends. President John S. Donald presided at the dinner.

The Friends have as a feature of their this year's program the proposed acquirement of Gibraltar Rock, near Lodi.

Publications

The Field Museum of Natural History has published an especially valuable monograph,—“Archaeological Explorations in Peru—Part 1—Ancient Pottery from Trujillo”, by A. L. Kroeber. It is finely illustrated with thirteen plates of the very interesting vessels obtained from cemeteries and ruins in this archaeologically rich region. “Trujillo is one of the centers yielding the Chimú, or Trujillo or Northern Coast, type of pre-Hispanic pottery, which was for a long time, with the possible exception of Inca products, the ancient ware best known and most abundantly represented outside of Peru. It is the style characterized by the finest and most effective modeling, by a luxuri-

ance of vessel forms bearing a narrow mouth or hollow stirrup-shaped handle."

"The Emeryville Shellmound,—Final Report" is the title of a monograph, by W. Egbert Schenck, issued by the University of California. This great mound, one of the most conspicuous of the shell mounds on the shore of San Francisco Bay, was levelled by a steam shovel in 1924 to convert the area into a factory site. This mound, when the work was begun on it, had diameters of 150 and 250 feet and was 22 feet high. 26,500 cubic yards of material were removed during its destruction. Mr. Schenck's description of the contents of this mound, and his fine plates illustrating some of the specimens found are most interesting.

The January-March, 1927, issue of *Indian Notes*, published by the Museum of the American Indian, Heye Foundation, contains a number of very interesting articles on "Huron Hunting Territories in Quebec", "Some Lake-bed Camp Sites in Nevada", "The Museum Central American Expedition", "Indian Ceremonies in Guatemala", and "Arapaho Medicine Bundle". Mr. George C. Heye describes the new storage building of the museum.

In the January-March issue of the *American Anthropologist*, among a number of excellent papers, are printed "An Analysis of Southwestern Society", by William D. Strong; "The University of Michigan Philippine Expedition", by Carl Guthe; "The Study of Indian Music in the Nineteenth Century", by Frances Densmore, and "The Tipis of the Crow Indians", by Walter C. Campbell.

The first issue of the *Land O' 7000 Lakes Journal* has made its appearance. This magazine is published by C. H. Paetzold, at Wausau, Wisconsin. It is printed to "serve in the up-building, development and conservation of the Great Outdoors of Wisconsin, Minnesota and Michigan". The first issue is well illustrated and very interesting.

Other Notes

The recent death at his home in New York City of Walter C. Wyman removes another of the older collectors of American Indian materials. Mr. Wyman, formerly a resident of Chicago, was well known throughout Illinois, Wisconsin, Michigan and other Middle West states in former years as a collector of archaeological materials. In the course of years he assembled an especially fine collection of native copper and stone implements and ornaments which he later disposed of to the Field Museum of Natural History. Unfortunately for students it has not been on exhibition since the erection of the new museum building. In his collecting Mr. Wyman was a keen rival of the late Henry P. Hamilton, William H. Ellsworth and other leading collectors of the Lakes region. In 1893 he assisted in collecting anthropological specimens for the World's Columbian Exposition, at Chicago. Wisconsin archeologists who knew Mr. Wyman will regret to learn of his demise.

At Clintonville, Wisconsin, Mr. Walter L. Olin, has been successful in establishing a novel outdoor museum in the village public park. Among its major exhibits are a section of the Chinese wall, a pioneer log cabin, and a piece of the Obsidian cliff in Yellowstone Park. In the public library Mr. Olin has preserved the library and personal belongings of Eben E. Rexford, the famous song writer and author.

With the beginning of another year of archeological fieldwork in the state of Wisconsin the Wisconsin Archeological Society asks the

assistance of all of its members in conducting surveys and researches in their home counties or other parts of the state which they find it possible to visit. Such service will be at all times greatly appreciated. Secretary Brown may be corresponded with for instructions, counsel or other assistance. Minnesota members are requested to communicate with Mr. Willoughby M. Babcock, at the State Historical Museum, St. Paul; Iowa members with Charles R. Keyes, at Mt. Vernon; Michigan members with Dr. W. B. Hinsdale at Ann Arbor, and Illinois members with Prof. Fay Cooper Cole at the University of Chicago.

The Committee on State Archaeological Surveys of the National Research Council, Washington, D. C., Dr. A. V. Kidder, chairman, may hold a meeting at Chicago in the near future to consider plans for the continued progress of this work.

In the old Governor Doty log cabin, now preserved in the public park at Neenah, Mr. S. E. Shattuck, is organizing a local historical museum. At Fond du Lac, Rev. J. H. Becker, has re-installed the museum collections in the public library. At Green Bay the new home of the Neville Public Museum should soon be ready for occupancy, if not already occupied. We now wish to see the public museum idea catch fire in Superior, Chippewa Falls, Black River Falls, Wausau, Manitowoc, Monroe, Prairie du Chien and other Wisconsin cities.

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NEW SERIES

No. 3

BUFFALO LAKE



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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Northland College, Ashland, Wis.

Rev. E. P. Wheeler
Chief Day-dah-kum-mahsh
(Frost, John)

Standing at foot of giving pole Idol is the higher stone.
The other has to do with placing the offerings.

(Picture taken at Odanah)

The Wisconsin Archeologist

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Vol. 6

MADISON, WIS., JUNE, 1927
New Series

No. 3

BUFFALO LAKE MOUND EXPLORATIONS

W. C. MCKERN.

If numbers count for anything, one of the most interesting mound areas in Wisconsin is that encircling Buffalo Lake, Marquette County. More than six-hundred of these monuments, erected by the aboriginal inhabitants of the district, have actually been subjected to a walking survey. The first compact group to be scientifically excavated was that at Kratz Creek.¹ So interesting and unique were some of the results of this research, that the Public Museum of Milwaukee thought it highly advisable to make similar studies of other Buffalo Lake groups. Accordingly, in the summer of 1925, a museum expedition was equipped and instructed to make an intensive archeological examination of another or other sites on the shores of this mound-guarded enlargement of the Fox River. The better part of two months was devoted to this work.² There is not space here to permit so much as a well-rounded general report of that work, but it seemed advisable to give some brief account of the findings of the expedition for the benefit of those members of the Wisconsin Archeological Society who might be interested.

The personnel of the field staff included the following members: Mr. Town Miller of Fairwater, Mr. Louis J. Dartt, whose home is within a few steps of the Kratz Creek Group, Mr. Gordon Mowers of Ripon, Mr. King Hubbert of the University of Chicago, and Messrs. John Jeske, Paul Martin and the author of the Public Museum.

The expedition included in its program the careful mapping of groups of mounds, the charting of individual

¹ Barrett, S. A., and Hawkes, E. W., The Kratz Creek Mound Group, Milwaukee Public Museum Bulletin, v. 3, No. 1, Milwaukee, 1919.

² McKern, W. C., Archeological Field Work in Green Lake and Marquette Counties, Milwaukee Public Museum Year Book, 1925.

....., The Neale and McCaughy Mound Groups, Milwaukee Public Museum Bulletin, in preparation.

mounds, the excavation of as many representative mounds as available time and the character of the mounds would warrant, and the organization and field study of data accumulating from these investigations.

Two sites were selected for intensive operations. The first of these was situated on the property of Mr. S. R. Neale, situated directly across the lake from the town of Packwaukee. Here a remarkable group of mounds offered a most enticing field for research, numbering eighty-eight in all. Of these, twenty-eight are effigy mounds, forty-seven conical mounds, and thirteen were so effaced by oft-repeated ploughing as to be of problematic shape. The effigy mounds include panthers, bears, birds and some indeterminate forms. Several of the bear mounds approximate one hundred feet in length and have a maximum elevation of from three to four feet. Three of the panther effigies are, respectively, four hundred and sixteen feet, four hundred and thirty-six feet and five hundred and seventy-five feet in length. The largest bird effigy has a spread of wings one hundred and twenty feet in extent and a maximum elevation of three feet.

The conical mounds are, with few exceptions, small and inconspicuous. The largest is thirty-five feet in diameter and four feet in height; the great majority of them, however, are nearer twenty feet in diameter and one foot in height.

Fifteen effigy and nine conical mounds were excavated. In the effigy mounds were found occasional potsherds and chert points, earthen fire places and burials. In all, nine burials were found in eight of the fifteen effigy mounds investigated, one burial occurring in each mound, with one exception where two burials were found. Two other effigies were found to contain old pits that, according to every indication, were graves from which all remains of bones, save for discoloration, had been removed by disintegration. Thus ten effigy mounds out of the fifteen excavated contained burials. Of these burials, all but one were inclusive, or made during the construction of the mound. The single intrusive burial occurred in a mound which also contained an inclusive burial. Thus ten out of the fifteen effigy mounds excavated were burial mounds. In the light of a

long standing and widely diffused idea that Wisconsin effigy mounds are not burial mounds, these finds were, to say the least, rather unexpected.

The nine conical mounds excavated produced a total of two burials and one pit which is probably the only remaining evidence of a wholly-distinguished burial. One of the burials had been disturbed and the evidence that it was inclusive was therefore not too clear. The remaining burial, if it deserves the name, consisted of a few human infant's teeth associated with the charred fragments of skull parts, deposited on the blackened stones of an altar or crematory. It is to be noted, then, that two-thirds of the "non-burial" effigy mounds contained, as the important internal feature of their construction, inclusive burials, while two-thirds of the conical "burial" mounds contained not the slightest evidence of burials. In the light of such data, it must be admitted either that the Neale Group mounds are entirely different from other mounds in the state or that the popular conception that conical mounds are essentially burial mounds and that effigy mounds are essentially ceremonial mounds, or at least peculiarly free from inclusive burials, is an erroneous one.

The most important feature found associated with effigy mounds, aside from their external shapes, was a burial situated at one of two focal points. More commonly the point was situated immediately behind the shoulder of the effigy, or so placed in the body as to correspond to the heart position of the animal. The other focal point was centrally situated in the head of the effigy. On the other hand, the most important feature found associated with the contents of the conical mounds was a small circular cist with retaining walls of red, unbaked clay and with a slightly concave bottom lined with small stones. These cists contained no evidence of fire and were empty, save for characteristic mound material and instances of peculiar discoloration. Twelve of these cists were found in the nine excavated conical mounds, and one effigy mound was found to contain two cists.

There is every indication that these cists, occurring as they do in vertical positions varying from within a few inches from the mound top to placement on the mound bot-

tom, are invariably inclusive mound features; a planned part of the mound. As regards their use, they are patently containers of some sort. It is hard to conceive of any wholly practical purpose which such containers could serve, associated with burials as they are in some instances. It seems probable, therefore, that their use involved some religious or ceremonial practice.

The second site investigated was situated on the north shore of Buffalo Lake about one mile east of Packwaukee, on the property of Mrs. A. J. McLaughry of Fox Lake. There is here a group of sixty mounds dominating a flat prominence at the very edge of the lake. The group is exceptionally compact; in many instances, the mounds are so closely intervalled as to be in actual contact. Forty-seven of the mounds are definitely conical in shape. Five mounds are either biconical or over-lapping pairs of conical mounds. Five effigy mounds include a bear, a bird, a panther, a fish and one problematic form. The remaining three mounds appear to have been linears.

Thirty-seven of the McLaughry mounds were excavated, including all of the effigy shapes. Almost invariably the mound material was a fine, blackish, sandy soil which contrasted vividly with the dull yellow soil upon which the mounds rest. Excavation produced many potsherds, showing a surprising variety of decorative techniques and motifs, ten of the clay and pebble cists first encountered in the Neale Group mounds, and fifty-six burials representing seventy-three individuals.

The cists occurred both in conical and effigy mounds; one was found in each of two effigy mounds; the others occurred in conical mounds, one or two in a mound, where they were centrally located. In every instance these cists were closely associated with burials.

Forty-six burials were found in conical mounds, representing sixty-two individuals. Twenty-nine of these were bundle re-burials, each containing the skeletal remains of from one to several individuals. Eight flexed in-the-flesh burials were found in conical mounds. Other burials were too far gone to permit classification.

Ten burials were found in the five effigy mounds, representing eleven individuals. Four of these were bundle re-

burials, three were flexed burials, in the flesh, and three were indeterminate burials.

Of the five effigy mounds, four contained burials. Of the thirty-two conical mounds excavated, twenty-four contained burials. There seems, therefore, to be no difference between conical and effigy mounds in the McClaughry Group in so far as the presence or absence of inclusive burials is concerned. Both flexed and bundle re-burials are found alike in effigy and conical mounds.

In this group, the flexed type of burial is the rare type. Bundle re-burials would seem to have been the usual thing. If the type of burial signifies a difference in rank, or other social distinction, flexed burial would seem to represent the less common or higher element.

One of the conical mounds in which no burials were found yielded two interesting specimens of pottery pipes. One of these was small and unbroken. The larger one was broken into many pieces. Both were trumpet-shaped, but the larger, now wholly mended and restored, more closely resembles the straight tubular type, so prevalent in other parts of America, than any other pottery pipe which the writer has seen from the Wisconsin area.

Another pottery pipe was found associated with a bundle re-burial in a conical mound. In some respects it is one of the most remarkable pottery pipes reported from this province. It is a very smooth, carefully finished product, of hard material, and has a pronounced elbow shape. When found, the broken stem was inserted in the cavity of the bowl, indicating that the pipe was broken previous to inclusion with the burial.

A comparatively large conical, or more definitely, pear-shaped mound was the most productive of the group. It measured seventy feet in length, fifty-seven feet in width and was slightly more than five feet in height. Excavation located eleven burials in the very heart of the mound. Three of these, probably all flexed, were situated about two feet below the mound surface. Seven burials, some flexed and others bundled, comprised a burial stratum situated one foot below the first burials; a copper celt, flat, rectangular and 9.9 cm. in length, was found associated with a skull in this stratum. The remaining burial found in this

mound was a large bundle re-burial representing eleven individuals, situated nine feet below the top of the mound. The bones of this burial, patently the oldest, were in much better state of preservation than those in some of the upper burials.

From all surface indications, and in consideration of geographical situation, one would expect to find the mounds of the Kratz Creek Group and those of the Neale and McClaughry groups essentially the same in internal features, as they are in external features, yet the color stratification and intaglio foundations so characteristic of the Kratz Creek mounds are entirely absent in the Neale Group, whereas a single intaglio mound, free from the slightest indication of color stratification, occurs in the McClaughry group. On the other hand, the Neale and McClaughry mounds were marked by the occurrence of a common peculiar feature, the clay and pebble cists, not found at Kratz Creek. The McClaughry Group is specially marked by the wealth of pottery represented in the sherds from its mounds. And yet the artifacts found in the mounds of all these Buffalo Lake groups, as well as external shapes and other data, indicate that practically the same culture produced them all. It will prove interesting to follow the tendency for local peculiarities in future investigations.

PICTURE WRITINGS OF THE CHIPPEWA INDIANS

ALBERT B. REAGAN

Former Indian Agent of the Bois Fort Chippewas at Nett Lake,
Minnesota.

That the Mexicans and the Indians of Central America had a system of writing is generally known, but it is not usually known that some of the tribes north of the Rio Grande also had a system of writing. The ancient Pueblos and cliff dwellers had a system of picture writing that they undoubtedly readily understood, for the bare rocks in the country of their abode are covered with innumerable pictographs, but as yet no key has been discovered by our race. Consequently with our present knowledge we do not know how advanced this writing was when those people were at the height of their power.

When the white people came to America they found the Chippewa using a crude writing, which, had America been left to develop its own civilization in its own way, would, no doubt, in time, have equalled the Mexican-Mayo systems if not surpassed them.

In no other tribes north of Mexico was picture writing developed to the advanced stage that it reached among them and the Delawares. This writing was favored by the barks of the region, birch bark being the principal bark used; and cartopography, winter counts, medicinal formulas and songs, tribal history and lodge rituals were inscribed and handed down from generation to generation. One old medicine man at Nett Lake, Minnesota, has over forty song birch bark parchments; and, in singing from them, he holds them before him much as we do a book.

This system was being developed by the shamanistic-medicine fraternity, and one wonders if the other writing systems of the world were not thus originally begun.

PETE MARTIN'S PARCHMENT, A SONG

1. Is the division line between stanzas.

First Stanza

2. I am the daylight road.
3. I come out on the ground to dance.
4. I sing to your gods; I sing to God.

The meaning of this whole stanza seems to be: I come out to sing and dance to my god in the early morning.

Second Stanza

5. I stand up on the ground.
6. I can "scale" on the water (not swim). (This is the other verse.)
7. I can go in all wigwams. I am the god that is everywhere.
8. When I come out I hang (myself) up in the sky (reverting back, no doubt, to the sun's being considered as the chief deity and his daily crossing the sky.)

The meaning of this stanza appears to be: I am God. I am everywhere. I go into all wigwams. I can float on the surface of the water. I also live in the sky above.

Third Stanza

9. In the center of the earth is the home of our gods.

10-11. We walk around (repeated).

12. I walk.

The meaning of this stanza is: I walk, we all walk on the ground, but the home of our manidos (gods) is in the center of the earth.

Fourth Stanza (reverse side of the parchment)

13-14. I walk right on (repeated), meaning I, the god, am always walking about.

Fifth Stanza (reverse side of parchment)

15. I walk right on.

16. I fly.

17. (No equivalent.)

18. I am walking around.

The meaning of this stanza is: I am God. I walk where I please. I walk around everywhere. I fly everywhere. I am God.

FARMER JOHN'S MEDICINAL BARK PARCHMENT

1-3. My truth is long. My words in truth are strong. My heart is true, and my words and truth are strong.

4. (The dance begins on this division, everyone rising and dancing.) Manido, manido, manido.

5. Our Father, Why is he the manido. All he uses is his word and this makes him God.

6. The chief. He is the chief. He is the chief. He is God.

7. The world, the world, the universe, light, air, water.

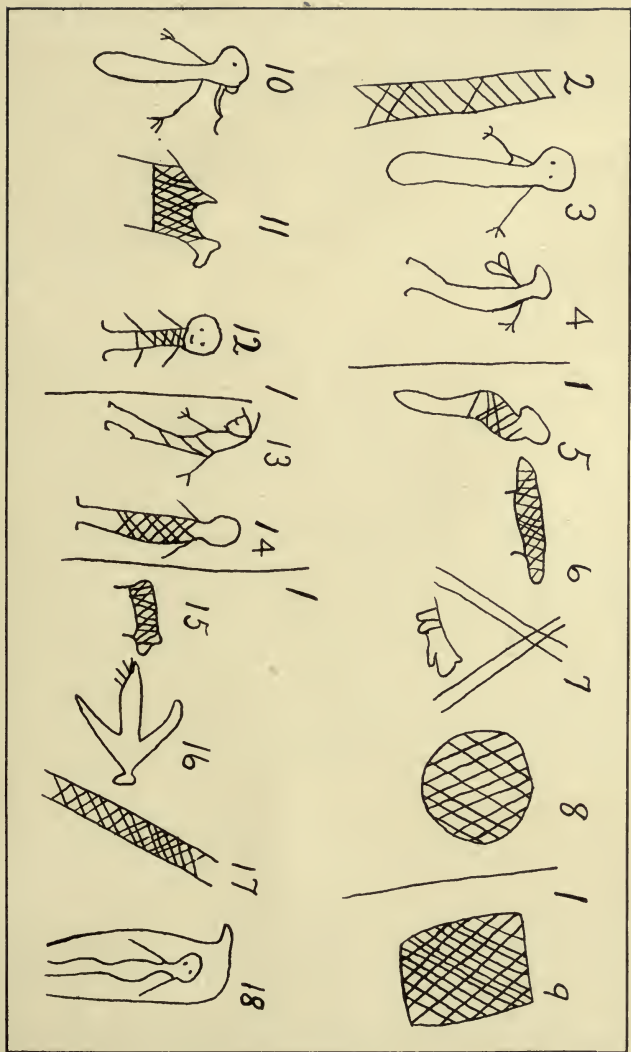
8. I am talking about the trees and the land.

9. I am everywhere when I ask for something to eat in the sky.

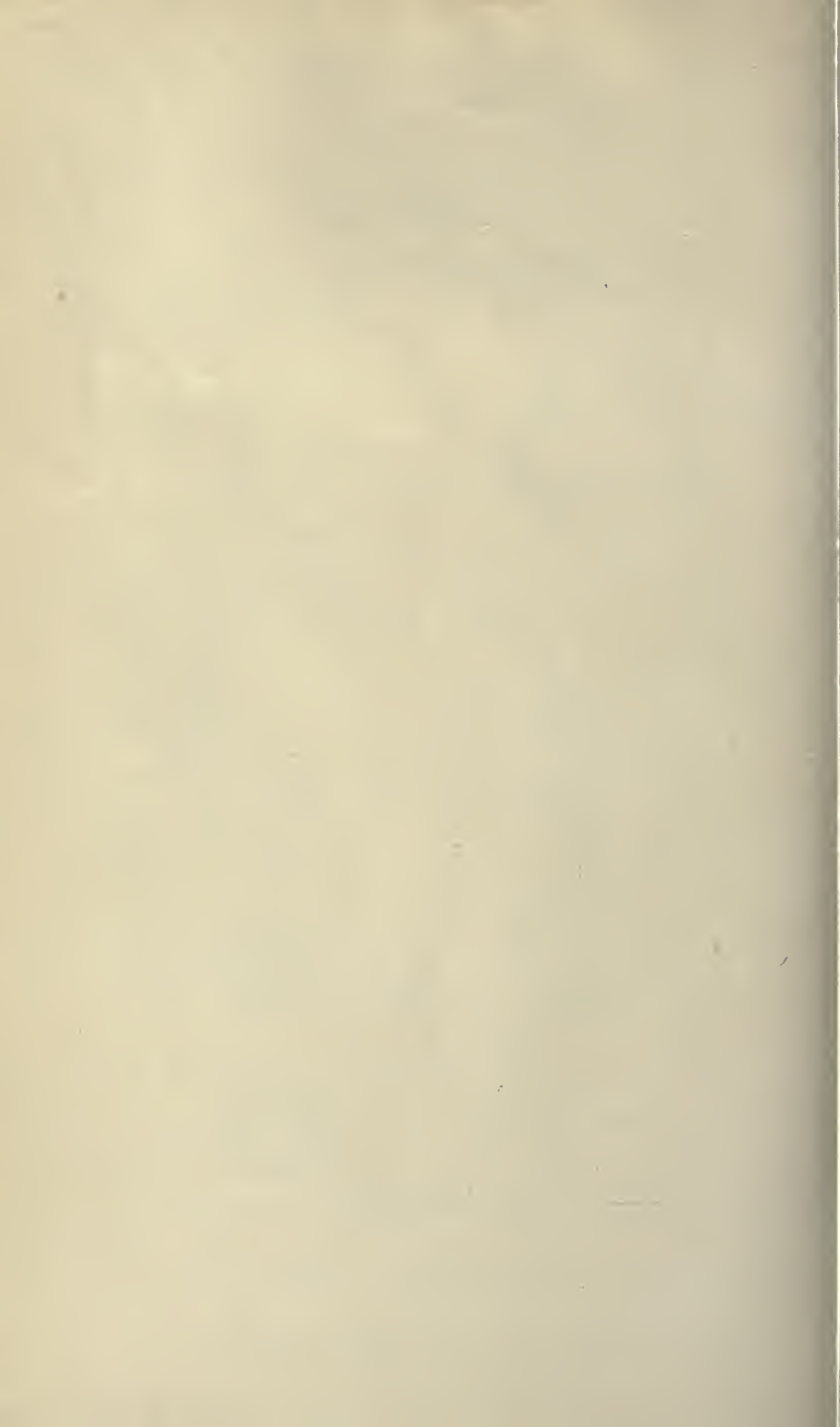
10. (This figure represents the East or Morning Song and Dance.) We're dancing through the morning dance hall.

11. I am looking for a camp (wigwam) that is in the East.

12. This figure represents the cactus plant which is con-



Pete Martin's Parchment
Plate 2



sidered as "big" medicine among the Chippewas. They assert that the manido planted it as the symbol of life and that it has always kept increasing from that first plant; and life among men increases in the same way. The figure has no English equivalent.

13. The figure says: "I feel happy and laugh that I am called to 'make song' (at the medicine lodge dance); and a spirit came after me who also felt so good when he arrived at the place of meeting that he laughed, too."

14. I want to listen to what the gods say because I know their word is true.

15. They hear me all over the land and even up in the sky. (The Indians do not dance while this verse is being sung.)

16. Do you hear me, my son? Do you hear the surf in the rolling wind?

17. This figure represents the water around the earth. The spirit says: "I rise out of the water."

18. I walk till morning.

19. I am the "out-talker."

20. I am hiring some one who belongs to that lodge.

21. (Morning song.) I am daylight. (The Chippewas worship Daylight as Wabeno, the Manido of the Morning.)

22. The gods (manido) are asking me to come.

23. Daylight will take you home.

On account of the sudden death of the aged Farmer John, the writer obtained a translation of only part of the parchment. The long lines indicate a long pause in the song.

A CHIPPEWA INDIAN IDOL

LUCY ROGERS HAWKINS

The stone idol which has accompanied the Chippewa Indians of the Chequamegon bay region since 1750 or about that time is now in new quarters in Wheeler hall at Northland college and will soon be formally installed in permanent dignity. The tribal idol is a red granite shaft about 8 inches square and about 2½ feet high. The top of the stone is in the crude shape of a human head and face.

When found by Rev. E. P. Wheeler last summer the idol was in the protection of Chief Day-dah-cun-mahsh of the

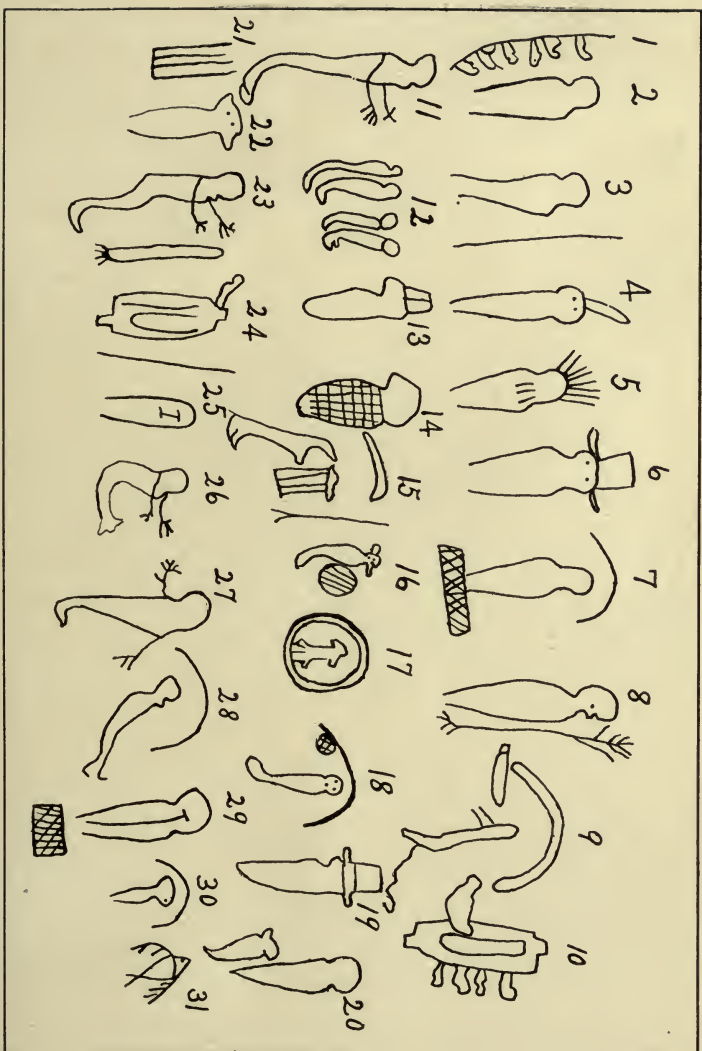
Odanah reservation. It stood next to an offering pole, from which the Indians were accustomed to hang sacrifices, such as dogs, wearing apparel, and tobacco. Mr. Wheeler is a member of the Chippewa tribe and his Indian name is Wah-bish-kin-dib, which signifies Whitehead. The son of pioneer missionaries to the Indians on Madeline Island and later to the reservation Indians at Odanah, Mr. Wheeler has devoted much of his time and energy to helping the Chippewas, and this transfer of guardianship of the idol is a mark of their confidence in him. The only suggestion made by the Indians is that the idol be placed, if possible, in the same room in the college building in which the pictures of Mr. Wheeler's parents are hung.

The idol has an interesting history. It is said to have been found when the Chippewas first came to the shores of Chequamegon Bay toward the close of the eighteenth century. When the tribe moved to La Pointe on Madeline Island, they took the idol with them. Years later when the tribal reservation was located at Odanah, the idol was moved again.

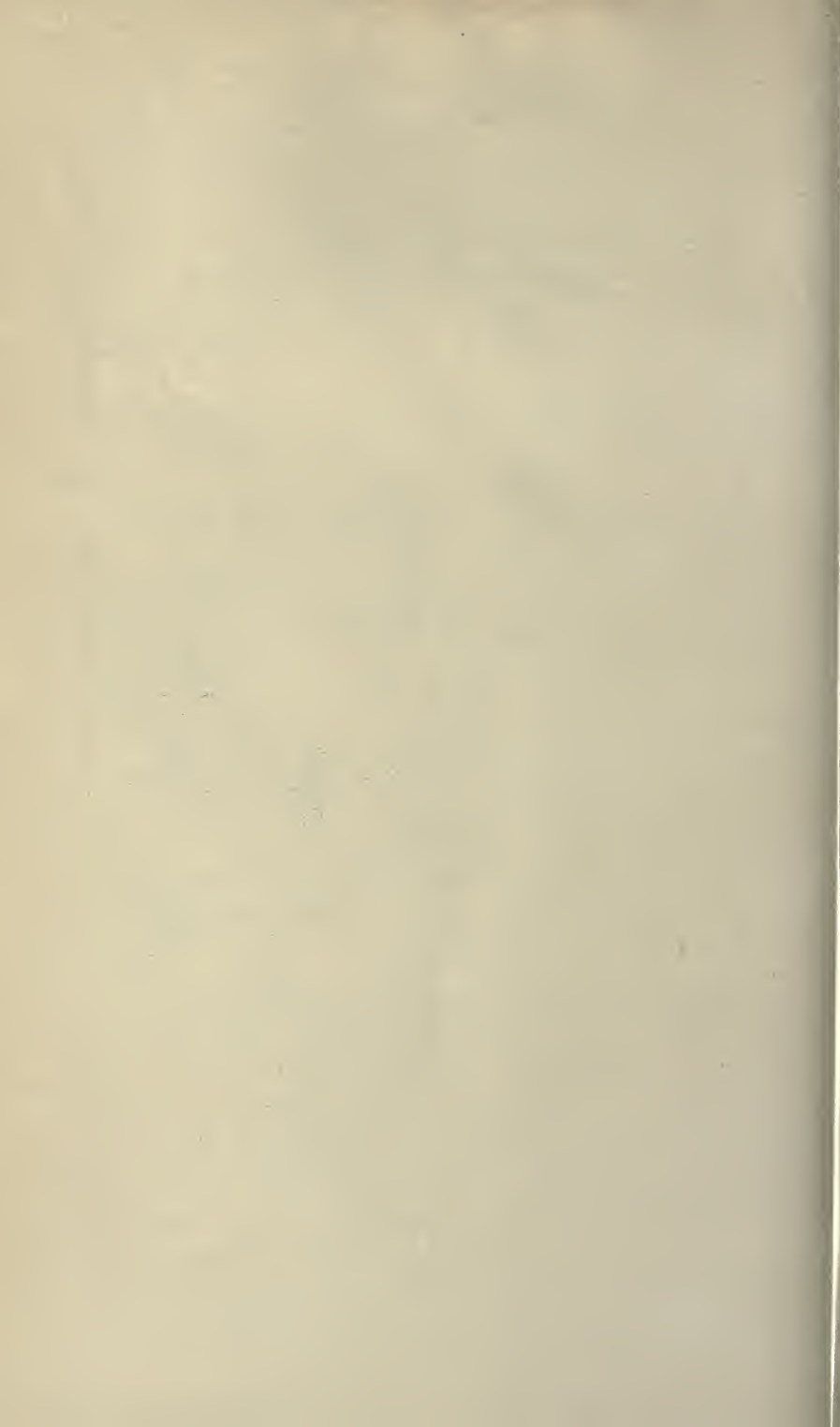
During the recent war hoodlums or enemies of the medicine lodge seized the idol and threw it into the Bad River in the hope of hiding it forever. It was finally found, however, and removed from the river to the home of Chief Daydah-cun-mahsh, known as John Frost to the white people. Beside the idol was placed a giving pole from which were suspended offerings and gifts to secure prosperity for the tribe and to provide against individual or community trouble.

The offerings on the giving pole, which was painted with alternate circles of red and yellow, consisted of tobacco, seasonable foods of different kinds, and articles of wearing apparel. The giving of clothing harks back to the days when human sacrifices were made, for clothing symbolizes human life. Children's clothing in particular was believed to be helpful, since the sacrifice of a child was greater than of an adult. In times of great emergencies a family dog was sometimes found on the giving pole.

The Chippewas have asked for the privilege of making similar offerings to the idol in the future, and college authorities have acceded to the request. The idol will prob-



Farmer John's Parchment
Plate 1



ably be placed in the reading room of Wheeler hall for the present, and a giving pole placed beside it.

When arrangements were made last fall by Chief Day-rah-cun-mahsh for the removal of the idol from Odanah to the college campus at Ashland, 12 miles away, the old Indian suggested to Mr. Wheeler that to guard against the disturbance of the idol by strange hands during the removal the college authorities make an offering of food to propitiate his majesty.

"I waited a day or so before replying," writes Mr. Wheeler in a letter to Professor Charles L. Lewis, college librarian, under date of Oct. 18. "When I did so, I told him that the professors would be glad to comply with his request only they did not know the tastes of the idol and would therefore ask him to make the offering for them. I gave him an order on a local grocery store so he could make the proper selection. If he followed former precedent, the idol got some cooked cornmeal seasoned with salt pork."

Mr. Wheeler, who is one of the founders of Northland college, now makes his home in Aurora, Ill. He expects to return to North Wisconsin in June and will then gather additional facts concerning the history of the idol from representative Indians of the Chippewa medicine lodge. Chief Day-dah-cun-mahsh, who was instrumental in presenting the idol to the college, fell into a well one day during the winter and was killed.

ANTHROPOLOGISTS MEET AT CHICAGO

The sixth annual meeting of the American Anthropological Association, Central Section, was held at Chicago, on March 25 and 26. The meeting was very well attended and the program of addresses, papers and lectures an exceptionally interesting one. The morning session on Friday, March 25, was held in Rosenwald Hall, University of Chicago.

PROGRAM

Address of Welcome—Prof. Frederick C. Woodward, Vice-President, The University of Chicago.

Response—Dr. Charles R. Keyes, President, the Central Section.

Symposium—"Publications of the Past Year on Anthropology, Archeology and Ethnology in the states included in the Central Section's Territory." Members present.

"Secret Rituals Among the Nootka Indians,"

"The Tone System of Grebo, a West African Language"—Dr. E. Sapir, University of Chicago, Chicago, Ill.

"The Teaching of Anthropology"—Prof. J. E. Pearce, University of Texas, Austin, Texas.

"Preliminary Archeological Survey of Eastern Pennsylvania"—Frances Dorrance, Curator Wyoming Historical and Geological Society, Wilkes Barre, Pa.

"Alabama Archeology"—Peter A. Brannon, Director, Department of Archives and History, Montgomery, Ala.

Appointment of Committees.

Announcements by the Secretary.

The afternoon session was held in the same hall, additional members and guests having arrived and largely increasing the attendance.

AFTERNOON SESSION—1:30 P. M.

"Certain Aspects of Hopewell Mound Exploration"—H. C. Shetrone, Curator of Archeology, State Museum, Columbus, Ohio.

"The Adel Grooved Axes,"

"A Village Site on the Big Sioux"—Dr. Charles R. Keyes, Cornell College, Mount Vernon, Iowa. (Illustrated).

"An Interesting Skull from Patagonia," (Illustrated).

"Field Museum-Oxford University Expedition at Kish, Mesopotamia, Season 1925-1926"—Henry Field, Curator Physical Anthropology, Field Museum, Chicago, Ill.

"The Preservation of Indian Landmarks in Wisconsin"—Chas. E. Brown, Chief of the Historical Museum, Madison, Wis.

"Michigan State Archeological Survey"—Ed. J. Stevens, Secretary, Michigan State Archeological Society, Kalamazoo, Mich.

"Archeological Work in Illinois under the University of Illinois"—Miss Charlotte Gower, Chicago, Ill.

"Cavern Man in Tennessee"—P. E. Cox, Archeologist, Franklin, Tenn.

EVENING SESSION

A dinner was given to the visiting members and friends by the University of Chicago at the Quadrangle Club, at 6:30 p. m. Dr. A. V. Kidder, chairman of the Division of Anthropology and Psychology of the National Research Council, Washington, D. C., delivered an address on "Modern Methods in Archeological Research." In the discussion which followed Messrs. Cole, Keyes, Pearse, Brown and other members participated. The balance of the evening was spent in discussing other topics of anthropological interest.

The morning and afternoon sessions on Saturday, March 26, were held at the Field Museum of Natural History. The program of papers was as follows:

MORNING SESSION, 9:30 A. M.

"Petroglyphs of the Columbia River Valley and their Relation to those of Adjacent States"—W. D. Strong, Assistant Curator, Department of Anthropology, Field Museum, Chicago, Ill. (Illustrated).

"Prehistoric Chronology"—A. T. Olmstead, Curator, Oriental Museum, University of Illinois, Urbana, Ill.

"Tattooing and Its Significance"—W. D. Hambly, Assistant Curator, Department of Anthropology, Field Museum, Chicago, Ill.

"Some Types of Caves and Rock Shelters in Western Europe"—Frank W. Aldrich, Bloomington, Ill. (Illustrated)

"Primitive Music and Musical Instruments," with demonstrations of instruments collected by the speaker. K. Kennedy, Sydney, Australia.

Business Session and Election of Officers.

AFTERNOON SESSION, 1:30 P. M.

"Recent Investigations on Hair"—M. Bernstein, Chicago, Ill.

"The Psychology of Magic"—Dr. Ellsworth Faris, University of Chicago, Chicago, Ill.

"Methods in the Study of Domestication"—Dr. Berthold Laufer, Curator, Department of Anthropology, Field Museum, Chicago, Ill.

Inspection of the Museum.

After the sessions the members were given an opportunity to inspect some of the rich anthropological collections of the Museum. In the evening, those who remained to the end of the session, were entertained at a dinner and smoker at the Adventurer's Club.

STATE SURVEYS

On Thursday, March 24, a session of the Committee on State Archaeological Surveys, of the National Research Council, was held at the University of Chicago, Dr. A. V. Kidder presiding. Reports were made at this time of the progress of the state surveys in Michigan, Wisconsin, Illinois, Iowa, Ohio, Tennessee, Texas and Alabama, and of the field work in progress in other states where no regular state surveys have yet been organized. These reports were very interesting. Maps showing the extent and character of the work performed were shown.

INDIAN STONE CUTTING TOOLS

Professor Warren K. Moorehead announces in a leaflet recently issued to American archeologists and collectors that he is "at work on a study of stone cutting tools of our Indians (axes, celts, hatchets, gouges, adzes, etc.). In the large and important Ohio State Archaeological and Historical Society Museum 2,500 have just been tabulated with the result that the famous high-culture Hopewell people did not make use of grooved axes (as tools); that northern Ohio produces forms rather different from Southern Ohio. The Peabody, Smithsonian and Andover collections indicate that in the Susquehanna, Penobscot, Cumberland, Arkansas, Tennessee, and other large river valleys cutting tools vary in a marked degree from those of Ohio.

"In brief, as studies and tabulations progress we shall find (probably) that the grooved axe came into New England from West or South; that the gouge and adze blade developed in New England; the fluted axes and celts developed in the Wisconsin-Michigan region; that the Pueblo cutting-tools of the North are quite different from those of Salado valley; that, as a rule, cutting tools are not placed with

burials, but that offerings in the cutting tool class are confined to tomahawk types.

It is proposed to expend about two-years' time in the preparation of the large volume on cutting tools. Leading museums will be visited in order that all variations of form may be studied, and also such private collections as have been assembled from a given locality. Following the completion of the axe-celt book, it is proposed to prepare two volumes upon pipes and their distribution. Later, two or three volumes upon chipped implements of all kinds. It is estimated that these studies cannot be completed short of ten or twelve years, but we hope to have our work upon the cutting tools available for distribution inside of two years.

"While the American tabulations are in process of making, it is suggested to secure from museums in Europe and Asia outlines and views of prevailing types of cutting tools in other countries. This material from foreign lands is to be carefully compared with our prevailing American types. What deductions may be drawn cannot be foretold. It is possible, however, that certain primitive types are similar here to those in Asia or Europe. From these, specialized forms having no corresponding foreign types developed on this side of the Atlantic. It is therefore quite important that our study be broadened and carried into effect on a large scale. Assuming that man came here in early Neolithic times the hatchet-axe tool was an important part of his equipment. And to make our study complete we shall confine the task to these objects and their distribution.

"The undertaking is very expensive, and up to the present time has been financed by the Department of Archaeology, Phillips Academy, Andover, Mass. As our research is for the benefit of institutions and individuals interested in science, financial assistance is requested. Readers of this circular will agree that an extensive territory must be thoroughly covered, and some thousands of photographs, drawings, and descriptions of type specimens in many areas secured. Otherwise, the study will avail us little.

No general explorations will be undertaken, but it is advisable to carry on limited explorations in village sites of certain river valleys, which have not previously been examined or concerning which there is nothing in our archae-

ological literature. Somewhere between \$8,000 and \$10,000 are needed during the next eighteen months in order to secure accurate and sufficient data. This amount is in addition to that which can be spared by my department. While I shall personally visit the larger museums and sites, and certain river valleys, it is a physical impossibility for me to cover the entire field in detail. The amount requested will permit me to reimburse several museum curators and advanced students, to prepare illustrations, descriptions, and tables, setting forth the variations in cutting tools in their respective areas and further enable me to extend personal observation. It is hoped that as many as possible will contribute toward the expense of carrying to completion the work described above.

MID-WEST MUSEUMS CONFERENCE

The Mid-West Museums Conference held a meeting in the auditorium of the State Historical Museum at Madison, on Thursday, April 7. About seventy-five representatives of historical, art and natural history museums located in Wisconsin, Minnesota, Illinois, Iowa and Indiana, and representatives of allied educational interests were present when President Samuel A. Barrett called the Conference to order at 2 p. m. Dr. Joseph Schafer, superintendent of the State Historical Society, welcomed the delegates in a very instructive address.

Mr. Charles E. Brown, chief of the State Historical Museum, spoke on a proposal to organize a model demonstration museum at this year's Wisconsin State Fair. He stated that there were in the state at the present time about one hundred museums of large and small size and urged the need of organizing others in some of the larger cities of the state. He felt that the installation of a small but well-equipped demonstration museum at the annual fair would do much to encourage an increase of public museum service. He outlined a plan for the making of such an exhibit. Mr. Huron H. Smith and Dr. T. E. B. Pope of the Milwaukee Public Museum followed the speaker with a discussion of the character of the natural history materials which such a museum exhibit should contain. The two papers were

afterwards discussed at length by Prof. George Wagner, S. T. Lathrop, Hardy Steeholm, Frederic Cranefield, Dr. Joseph Schafer, Willoughby M. Babcock, R. A. Buckstaff and others present, many excellent ideas being presented. President Barrett was asked to appoint a committee to take the matter of preparing such an exhibit in hand.

Dr. Barrett presented a discussion of the subject of the organization of a course in museum work for mid-west members. He explained what was being done at the Milwaukee museum to prepare a number of men and women for such service, and also informed the conference of the plans of the American Museums Association for training a limited number of museum curators. Mr. Buckstaff, an officer of the Oshkosh Public Museum, presented a discussion of the administration of museums specializing in a particular field. These papers were discussed at length by the Messrs. Babcock, Pope, Brown, Steeholm, Overton and others present.

Mr. Nile Behncke presented a report on the recently organized Art Classes of the Oshkosh Museum, his report being read by Secretary Buckstaff.

Mr. Babcock extended an invitation to the Conference to hold its autumn meeting at St. Paul. This invitation was referred to the Board of Directors for consideration.

For the Conference meeting the State Historical Museum had prepared several interesting special exhibits. Mr. Fred Wilhelm, a professional modeler, exhibited a fine miniature model of a section of Glacier National Park. A new exhibition of oil paintings was made by the Madison Art Association. These were viewed by the members and guests before and after the meeting.

On the following two days the members of the Conference met in a joint meeting with the Wisconsin Academy of Sciences and the Wisconsin Archaeological Society, in the auditorium of the Biology Building of the University of Wisconsin.

INDIANA ARCHEOLOGY

There are in Indiana numerous men and women interested in archeology but no state archeological society has yet been organized. The work of archeological research and exploration has always been carried on it would appear largely by members of the state geological survey. So far as can be learned but little progress has recently been made in Indiana in organized archeological research work or in the preservation of its Indian remains.

Prof. Cyrus Thomas in his "Catalogue of Prehistoric Works East of the Mississippi River," published by the Smithsonian Institution in 1891, devotes eleven and one-half pages to a listing under the heads of counties of the then known prehistoric works in Indiana. The principal contributors to this record were Prof. E. T. Cox, who published descriptions of the mounds, enclosures, and shell heaps known to him in the Geological Survey reports of 1874, and 1878, by John Collect and G. M. Levette, who described similar works in the reports of 1873 to 1875, by G. C. Macpherson in the report of 1875, and by R. S. Robertson. Dr. George W. Homsher, Edgar R. Quick and others in the Smithsonian Reports of 1874, 1879 and 1882. Others are mentioned in the Geological Survey report of 1882.

Archeological remains are numerous in Indiana. In Lake County in the northwestern corner of the state, near the Lake Michigan shore and along the banks of rivers are groups of Indian mounds, village sites, several enclosures, and burial places. Groups of mounds and other earth works also exist in Porter, La Porte, Newton, Jasper and White counties in this part of the state.

In northeastern Indiana there are groups of mounds and sites in La Grange, Steuben and Noble counties, and along the White River in Allen county. Groups of mounds, both prehistoric and historic village sites, flint quarries, burial places, circular and rectangular enclosures, shell heaps and other Indian remains are found along the entire course of the Wabash river from near Fort Wayne to where its waters enter the Ohio. In the region from Terre Haute southward to Vincennes such remains are particularly numerous.

Indian remains are also abundant along the entire course of the Ohio river, the southern boundary of the state. In the counties of Dearborn, Ripley, Switzerland, Jefferson and Clark are numerous village sites, circular and rectangular enclosures, cemeteries and other burial places, and both earth and stone mounds. In Harrison county are village sites and shell heaps and several flint quarries.

Evidences of aboriginal occupation are also numerous in the center of Indiana, in the counties east of Indianapolis and between it and the Ohio state boundary. Here also are many groups of mounds, both circular and rectangular enclosures, shell heaps and cemeteries. Henry county appears to be or to have been especially rich in shell heaps. Mound groups, enclosures, village sites and burial places are also found in the counties south of the capital city and between it and the Ohio river. Of the archeology of the counties north and west of Indianapolis, with the exception of Montgomery, Morgan, Owen, Tipton and Hamilton less seems to be known.

There are many fine archeological collections and specimens in private hands in Indiana. An effort should be made to secure these for the state and local museums before they are borne away by outside institutions and thus become lost to Indiana people.

WHY MUSEUM PROJECTS FAIL

Reprinted from the April issue of The Museum News.

With the ever increasing interest in museums and activity in the museum field it is inevitable that there should be many plans for new museums which never reach maturity. In fact a perusal of past events makes it possible to anticipate, to a certain extent, some of the failures. Although in the minds of museum men there is now the full conviction that to thrive a museum must be more than a repository—that it must perform some definite function—many promoters of new institutions do not realize this fact. For this reason we witness, each year, the inception of plans for certain museums—so-called which are doomed to either failure in their incipient stages, to ultimate stagnation or to a radical change of policy.

Behind many schemes is the desire on the part of a small group to establish a memorial, this feature receiving more attention than that of perfecting an organization and of developing a program of value to the community. In other cases it is an ardent desire to assure the preservation of certain collections of objects, often of more sentimental than scientific value. These two facts alone mean but one thing—that museum workers must not stop when they have instilled these modern ideas of museum service into their own numbers but must educate those who for many reasons are constantly becoming the promoters of new museums.

THE ANNUAL WISCONSIN ACADEMY MEETING

The annual joint meeting of the Wisconsin Academy of Sciences, Arts and Letters and the Wisconsin Archeological Society was held in the auditorium of the Biology building of the University of Wisconsin on Friday and Saturday, April 8 and 9. The Mid-West Museums Conference also participated in the meeting. The meeting was as well attended and interesting as in previous years, many visitors also attending the several sessions. Papers of an anthropological and historical character were presented by Hazel Manning, R. A. Buckstaff, M. V. O'Shea, Curtis Merriman, R. M. Bagg, Curtis Nettels, F. M. K. Foster, W. C. English and Ernst Voss, and on biological subjects by Angie K. Main, H. H. Smith, S. S. Wadmond, G. H. Conklin, J. J. Davis, H. A. Schuette, E. A. Birge, George Overton, and G. W. Keitt. Frank E. Ross presented an astronomical paper.

The annual dinner was held at the University Club on Friday evening. Following the dinner Dr. Joseph Schafer delivered an illustrated address entitled, "On the Gold Trail, 1849."

HISTORIC AND SCENIC GUIDE BOOK

The Secretary is publishing a booklet entitled, "Scenic and Historic Wisconsin," intended for the use of all persons interested in the Wisconsin Outdoors.

In this publication over 1,500 features of scenic, historic and curious interest in the state are listed, these being conveniently arranged under the names of the Wisconsin cities and villages in which, or in the vicinity of which, they are located. It is a ready reference guide to groups of Indian earthworks, sites and other interesting aboriginal landmarks, historic buildings and places, noted scenic and geological features, industrial monuments, and curious features of the state. The municipal and other museums are also listed.

The preparation of this booklet has entailed a large amount of work. So far as known there is no ready reference guide book just like it in the country. As its contents are only partly of an archeological and ethnological nature it could not be published by the Wisconsin Archeological Society. It is therefore being printed at the author's expense. The edition has been limited to one thousand copies. Its cost is expected to be fifty cents. Members of the Society may order copies from Mr. Charles E. Brown, 2011 Chadbourne Avenue, Madison, Wisconsin.

RESEARCH WORK

All members of the Wisconsin Archeological Society are requested to assist during the present summer and autumn in locating additional mound groups, enclosures, cemeteries and other burial places, village camp and workshop sites, shell heaps and refuse pits, flint, quartzite, pipestone and steatite sources and other Indian remains in whatever parts of the state they happen to be and to prepare full reports on these and mail them to Secretary Charles E. Brown at the State Historical Museum at Madison. Any such survey or exploration work which is undertaken should be done as thoroughly as possible and reports should be accompanied by maps, drawings and photographs. Full instructions for field work will be sent to all members and friends who may wish to assist on request. In making collections from village or camp sites the often abundant sherds of pottery vessels should not be neglected. They will be most useful in assisting in determining the culture status of its former inhabitants. Camp and village sites,

of some of which the Society may have no record, occur on the banks of numerous streams and lakes in Wisconsin.

When there is any local history or information concerning any of these sites it should be recorded and turned in to the society for its files. Outline drawings and photographs of specimens found on these sites should also be turned in. At the close of the year all contributors of archeological notes or data will be given full credit in the annual report for the data which they have filed. Every member and friend of the society is asked to use his influence in preventing tourist visitors from digging in Indian mounds or burial places or mutilating other Indian landmarks. Those located on state or other public properties are protected by state law.

ARCHEOLOGICAL NOTES

Meetings

The annual meeting of the Wisconsin Archeological Society was held in the Trustee Hall of the Milwaukee Public Museum, on Monday evening, March 21, at 8 o'clock. In the absence of President West Vice-President Charles G. Schoewe conducted the meeting. Sixty members and some visitors were present. Secretary Brown presented his annual report. In this report he gave an account of the meetings held during the year, of the new members elected, of researches conducted, of the preservation and marking of additional Indian mound groups, the establishment of several new museums, of the progress being made by other state museums, and of other occurrences of interest to the Society.

On motion made by Mr. Edward F. Richter the present officers of the Society were unanimously re-elected. The program for the meeting consisted of an illustrated lecture by Mr. Harry G. Dyer of Madison on "Old Steamboating Days on the Upper Mississippi River." This was thoroughly enjoyed by the members and visitors present.

Mr. T. M. N. Lewis exhibited a collection of stone implements obtained in Virginia and gave a description of the character of the Indian sites from which these were obtained. Mr. Anton Sohrweide exhibited a collection of stone and other implements and ornaments obtained from a village site at Watertown, and Mr. C. G. Schoewe several Potawatomi woven bags from northeastern Wisconsin.

At the Executive Board meeting, held before the annual meeting, Messrs. Hugo C. Sauer and Hans Sauer, Milwaukee, were re-instated as members, Mrs. J. L. Perkins and Ulysses S. White, Milwaukee, and E. E. Bailey, Little Rapids, were elected honorary members.

Meeting of the Wisconsin Archeological Society held at Milwaukee on Monday evening, April 18. Sixty-three members and visitors were in attendance. Vice-President Schoewe presiding. Secretary Charles E. Brown reported the election to membership by the Executive Board of the following annual members. Edwin H. Hewitt, Minneapolis; Rev. Thomas M. Schmitz, St. Francis, and Leroy Willoughby, Milwaukee. He also reported on the Central Section, American Anthropological Association meeting, held at Chicago, and on the joint meeting of the Society, and Wisconsin Academy of Sciences, held at Madison. He read a letter received from President George A. West describing his visits to sites of archeological interest in southern Europe and northern Africa.

Mr. William D. Kline, lecturer on the Milwaukee Museum staff, gave an illustrated lecture on "A Visit to Hindu Pigrimage Places." This was greatly appreciated by the members. Various members took part in the discussion which followed.

Mr. W. C. McKern was appointed to report at each monthly meeting on the progress of anthropological research in the United States and foreign countries.

The last meeting of the Wisconsin Archeological Society before the regular summer adjournment was held at the Milwaukee Public Museum on Monday evening, May 16. Sixty-five members and guests were present when President George A. West called the meeting to order. Secretary Brown presented a report on archeological researches begun, on the proposed organization of several new municipal museums and on the proposed removal of several others to buildings of their own. Mr. W. C. McKern followed with a brief report

on the progress of anthropological research in several states and foreign countries.

The program of the evening consisted of an illustrated lecture by Dr. Louise P. Kellogg, research associate of the State Historical Society, on "The Indian Fur Trade in the Northwest." Dr. Kellogg has always been a favorite speaker before the Society and this lecture was particularly appreciated by a greatly interested audience.

At the meeting's close Messrs. E. F. Richter and W. H. Vogel made exhibits of archeological specimens the particular interest of which was explained by President West.

Publications

The Mississippi Geological Survey announces the publication of "The Archeology of Mississippi," by Calvin S. Brown. This is a volume of 372 pages with 354 copper plate illustrations. Copies may be purchased from E. N. Lowe, State Geological Survey, University, Mississippi. Its price is \$3.50.

"Lake Mendota Indian Legends" is the title of a new University of Wisconsin Summer Session leaflet prepared by Charles E. Brown, chief of the State Historical Museum, Madison. All of these legends are of Winnebago Indian origin and relate to points of scenic and archeological interest on the shores of this largest and most beautiful of the Four Lakes. Second editions of two other leaflets of the same series, "Wisconsin Indian Tribes," and "Paul Bunyan Tales," have also appeared. Requests for copies of any of these leaflets should be accompanied by a two cent stamp.

At Ann Arbor, Dr. Carl E. Guthe of the University of Michigan, published in May and December, 1926, the first two numbers of "The Teocentli" a "trade journal," or "round robin," by means of which American anthropologists "working on various phases of those Indian cultures which owe their development to a knowledge of maize culture might keep track of one another." The second issue, which contained letters from thirty anthropologists in twenty different states, proved very interesting to all who received copies. Dr. Guthe is now preparing a third issue to appear in June of this year.

The Texas Museum Association has issued a bulletin, "A Summary of reasons Why Texas should have a State Museum." Prof. G. E. Pearce of Austin is president of the association and E. H. Sellards its secretary.

The report of the United States National Museum, 1962, reports researches conducted by H. B. Collins, Jr., in Mississippi and Alabama, archeological field work by H. W. Krueger along the Upper Columbia river, and by J. C. Clarke in Young's Canyon, Arizona. N. M. Judd assumed charge of the National Geographic society's archeological explorations in New Mexico. Dr. Hrdlicka visited Alaskan sites for future excavation and to obtain data throwing light on Eskimo origin. A total of 4,223 anthropological specimens were added to the museum.

In the January, 1927, issue of the North Dakota Historical Quarterly are published the "Journal of H. E. Maynardier," being an account of a boat trip from Fort Union to Omaha in 1860. Enroute the party visited the Mandan and Gros Ventres Indians at Fort Berthold and held a council with the Sioux. In this number is a paper on "Some Uses of a State Historical Museum by Charles E. Brown.

The University of California has issued two fine monographs on "The Uhle collections of Nieveria," by A. H. Gayton, and "The Uhle Pottery collections from Nazca," by A. H. Gayton and A. L. Kroeber, both descriptive of the interesting pottery vessels of Peru.

In the March, 1927, issue of the Wisconsin History Magazine are several papers of interest to Wisconsin archeologists. Mr. W. A. Titus describes the building of Fort St. Antoine, on the shore of Lake Pepin, by Nicholas Perrot, in 1689, and Mr. Charles E. Brown contributes a paper on "The Springs of Lake Wingra."

The American Anthropological Association has published in its Memoirs, "The Social and Ceremonial Organization of Cochiti," by Esther S. Goldfrank. The material for this monograph was gathered in the fall of 1921 and spring of 1922, at Cochiti Pueblo, New Mexico.

The 1925-26 Annual Report of the Peabody Museum of Archeology and Ethnology, Harvard University, reports the opening of a new section in which are exhibited collections from the native tribes of Siberia and other parts of Asia, also of the Philippine Islands, Malay Archipelago and Australia.

C. B. Cosgrove was engaged in the exploration of Swart's Ranch Pueblo in the Mimbres Valley, New Mexico. The Spinden-Mason Archaeological Expedition skirted the coast northward along the Yucatan Peninsula, and making excursions inland by means of rivers, discovered the ruins of some fifty buildings. They also examined ancient burial places on the Bay Islands on the northern coast of Honduras.

Other Notes

Mr. C. H. Sanderson of Madison has acquired for use as a summer home the land on which is located the so-called Lewis Group of Indian mounds located on the shore of Lake Waubesa, about one-fourth mile west of the village of McFarland. This interesting group of nine linear, effigy and conical mounds is located on "the crest of a high wooded hill." It was described by Dr. W. G. McLachlan in his Lake Waubesa report published in 1914. Mr. Sanderson is very much interested in the mounds and will preserve them.

Mr. H. L. Skavlem of Janesville was present at the Outdoor Life Exposition held in the Chicago Coliseum, during the week of May 9-14 and where he gave public demonstrations in Indian flint workings. A photograph which appeared in a Madison paper shows Governor Fred R. Zimmerman of Wisconsin watching Mr. Skavlem fashioning a flint arrowpoint.

In Minnesota there is a possibility that a state archeological society similar to those now in Ohio, Wisconsin, Indiana, and Michigan will be organized in the near future. Residents of Minnesota who are interested in the organization of a state society may correspond with Mr. Edwin H. Hewitt, at Minneapolis. The organization of such a society should be the means of increasing the archeological collections of the Minnesota Historical Society and of the University of Minnesota and of other museums in that state.

The death of Dr. William Powell Wilson, director of the Philadelphia Museums, occurred on Thursday, May 12. Dr. Wilson was one of the leading museum directors of America. He was a leading spirit in the work of the American Museum Association. Many Wisconsin friends will greatly regret to learn of his death.

The Milwaukee Public Museum is proposing to undertake during the summer the exploration of one of the Indian mound groups located at the Black River south of the city of Sheboygan. These its field party will restore after they have been explored. These mounds were described some years ago by Dr. Alphonse Gerend in the Sheboygan county report published by the Wisconsin Archeological Society.

Mr. Alonzo Pond has returned to Wisconsin after a year or more spent in the exploration of archeological sites in Algiers under the auspices of the Logan Museum of Beloit College. Mr. Pond has brought with him a large amount of palaeolithic material from some of the stations explored.

Some new museum projects are under way. At Baraboo the Sauk County Historical Society is planning to secure the Noyes residence and to thus be able to remove its interesting museum from its present crowded quarters in the court house to a place where it can be of greater service to the local schools and public.

The organization of a city museum is receiving attention at Fort Atkinson. There is a possibility also of the organization of a museum at Janesville. At Marinette high school teachers and students are gathering material for the high school museum. All of these projects should receive full public support.

The Wisconsin Archeologist

Vol. 6

September, 1927
NEW SERIES

No. 4

EFFIGY MOUND AIRPLANE PHOTOGRAPH SUMMER MEETINGS LITTLE GREEN LAKE



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$.50

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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EFFIGY MOUND NEAR BURLINGTON
Airplane photograph by C. W. Beemer

The Wisconsin Archeologist

Published Quarterly by the Wisconsin Archeological Society

Vol. 6

MADISON, WIS., SEPTEMBER, 1927
New Series

No. 4

AN AIRPLANE PHOTOGRAPH OF AN INDIAN EFFIGY MOUND

Charles E. Brown

One of the notable achievements in archeological field work in the state during the summer was the photographing of an Indian effigy mound from an airplane, being the first time that such an experiment has been undertaken or accomplished in any state. To Mr. C. W. Beemer of Kenosha, an active member of the Wisconsin Archeological Society, belongs the credit of planning and successfully carrying out this worthy and valuable experiment, which is a distinct forward step over the photographs of Wisconsin prehistoric Indian monuments of the same character taken by Mr. George R. Fox, another member, from the tops and branches of trees in spring of the year 1920.

In presenting a brief account of Mr. Beemer's undertaking to the members and friends of the Wisconsin Society we take the liberty of quoting from his modest report made to its secretary on July 6, 1927. "The nearest mound available for the experiment lies a half mile south of the Racine-Kenosha county line, on rising ground of pasture and oak openings, overlooking the Fox River several hundred feet to the east. Dr. Lapham gives a brief description of this mound in "The Antiquities of Wisconsin" (p. 24, pl. XIII, no. 1). It lies on both sides of the road (State Trunk Highway 83), the body on the west and the tail on the east side, in pastures on the Henry Wehmkoﬀ farm, near the center of the NW. $\frac{1}{4}$ of Section 26 of Wheatland Township, Kenosha County. It is 24 miles by road from Kenosha and $5\frac{1}{2}$ miles south from Burlington. The farm is at present leased by Mr. John L. Kerkman, who very readily gave permission to prepare the mound for its photographing.

"The earthwork occurs in a setting of rare beauty, no matter what the season may be. From the tail one may obtain glimpses of the Fox river through the trees which dot the gentle pasture slope running down to its banks. On the other side of the valley the hills are covered with masses of woodland. To the west lies another very lovely oak grove. On the hillside to the northeast the earliest settlers of this region found a populous Indian village, some of whose inhabitants lingered there until the late forties or early fifties. The beauty and convenience of its location make it easy to understand their choice of location for a home. While it seems unlike that the Potawatomi the settlers found there were the builders of the mound, the spot itself has been a place of habitation from very early times. It remains in its original condition, one of the rapidly disappearing virgin tracts of the county.

"A comparison of Dr. Lapham's plat with the bird's-eye view reveals several minor differences. It will be noted that the line from the head to the end of the forelegs of the effigy is concave in the photograph but straight in the plat, the hind legs are more rounded, the angle at the junction of head and back more acute, and the ball at the end of the tail of a different shape. The effigy is evidently intended to represent the panther (water spirit). The road curve in the photograph is due to the hill on which the mound lies.

"We hopped off at 3:45 Monday afternoon, June 27, from the Howland Avenue flying field at Kenosha in a trim little Air King biplane, with a good breeze helping us on our way. Pilot W. J. Noll had arranged to have me signal by pointing in the directions I wished to go, as I was familiar with the country and this would be easier than to fly by map or compass. He asked me quite seriously if I intended to climb out on the wing to take pictures—a fine question to ask anyone whose only previous aerial experience had lasted less than five minutes. I found, however, that it could easily be done by anyone with steady nerves and a strong grip, if necessary. However, I considered it entirely unnecessary.

"We headed northwest for a mile or so to the Geneva Road, the main highway west from Kenosha, and followed this almost to the Fox River. I took advantage of this op-

portunity to take snap shots of the villages and lakes which lay along the route. We soon reached a flying altitude of 1200 feet, and the country began to take on something of the artificial appearance one usually sees in high altitude photographs. It was a novel and pleasing experience to see all the old familiar spots from a new angle. Creeks and rivers I had always considered fairly direct in their flow twisted and turned in surprising curves. Fields of young corn resembled nothing so much as giant squares of green corduroy laid on the earth. The varying shades of light green of the pastures contrasting with the deeper color of the hardwood groves was most beautiful. In the distance half a dozen shining silver lakes could be seen at one glance. On close approach they became a rich dark brown, with yellowish areas marking the shallower portions. A continuous procession of black beetles with curious rectangular bodies crept along the highway below. Many cultivated fields of brownish yellow had intermixtures of black soil which gave the impression of having been smoked like a glass passed lightly over a candle flame.

"Near Salem a sudden puff of wind caused the plane to buck in a manner very thrilling to one of my meager airplane experience. Young grain shoots more thickly sown in some parts than others gave a field the appearance of a carpet with the nap worn thin in spots. The Fox River, so beautiful when viewed from its banks, was disappointingly insignificant from the air. On going northwesterly in the direction of the mound, we passed a long diagonal over the valley and quickly sighted the mound ideally marked out on the hilltop (although it must be said that the topography of the land is always greatly flattened from the air. This is very noticeable in the pictures).

"Due to some difficulty in getting the outline in range after dropping to a 500 foot level it was necessary to circle a few times in order to obtain a satisfactory view, as it was necessary for the sunlight to be right and the image free from the obstruction of wings and struts. Then a great rush of wind, a nervous aiming of the tightly clutched camera, an exultant yell (which might as well have been a whisper for all that could be heard) as the shutter clicked, and the first aerial photograph of a Wisconsin effigy mound

was taken. Then a quick dash for the nearby Walworth County line, a playful swing into Racine County, once more past the mound, and we were on our way home.

I put aside the cameras and settled myself down to enjoy the views now so clearly to be seen with the sun at our backs. After circling over the village of Salem and Hooker and Paddocks Lakes we struck a straight course for home, and although still almost 15 miles away, Kenosha and Lake Michigan could be seen faintly through the haze that obscured the horizon in all directions. A mile or so from the field we began to make a gradual descent, then a long graceful glide, a bumpy "taxi ride" to the windward side, and our trip of a little over an hours duration was over."

In preparing this great effigy for its photograph it was necessary to clear away some of the raspberry and hazel bushes along the highway fence and with a brush to carefully apply powdered lime around the base of the low outline of the mound. After this had been done it rained for three days and the entire outline had to be again limed. "The distance around the mound, including the part obliterated by the building of the road, is 495 feet. On the 429 feet still intact I used 100 pounds of Limate, making an outline averaging about 28 inches in width, or about 41½ feet to the pound, applying it rather thickly. The time required for the outlining alone was two hours."

Dr. Lapham's description of this great effigy, published in 1855, is very brief: "Five miles south of Burlington (on the northwest quarter of section twenty-six, township two, range nineteen), is a solitary animal mound, with a curved tail, and enlarged at the extremity, as shown in the figure. (Plate XIII, No. 1.) It is situated on a gently sloping hill side, the road passes directly over it. It is a very unusual circumstance to find such a mound disconnected from other works; but we could not learn that any others existed in the vicinity."

On Sunday, August 21, the writer and Mr. Theodore T. Brown motored to Burlington from our survey camp at Lake Geneva to see this very remarkable example of prehistoric Indian earthwork sculpture. We had no difficulty in locating it, the name on the rural mailbox in front of the Kerkman farmhouse catching our eyes as we approached

the base of the elevated land upon which the mound is situated. The body and a part of the tail of the huge effigy lies in the pasture on the right side of the road as approached from the direction of Burlington, and the remainder of the great curved tail with its terminal knob in the pasture on the left. Here was a sight worth coming a hundred miles to see yet hundreds of motorists, who would have been interested in seeing it, were passing through it every hour of that lovely midsummer afternoon. We easily climbed the wire fence and noted that traces of the limate with which Mr. Beemer had outlined it nearly two months earlier were still to be seen. The pastures were burned brown from a lack of rain.

We had not come prepared to take any measurements of the effigy. Having no compass or tape line we paced off the distances as well as we could. These showed that the length of the body of the animal is about 45 feet, the distance from the top of its prominent head to the base of its front limb about 46 feet and the width of its body about 21 feet. The total length of its tail (paced down the curve) is at least 140 feet. Where it joins the body its width is about 15 feet and the circular projection at its end about 28 feet in diameter. At its highest part, at about the middle of the body, this mound is about 3 feet high. The high land upon which it is located overlooks the miles of Kenosha County prairie farms and wooded hills. No more impressive and beautiful location for the erection of a fine representation of one of their very important animal divinities could have been selected by the early Redmen. The winding Fox River lies about 500 feet to the northeast at the base of the hills. Who can visualize the picturesque aboriginal ceremonies which probably took place on this hilltop, perhaps a thousand years ago, when the erection of this large animal shaped earthwork was proceeding, or when it was completed.

The widening of this roadway is being contemplated, surveyor's line and grade stakes have already been set in the pasture on the left side of the road, and thus the destruction of the curving tail of this great effigy will probably soon be accomplished. It is, as Mr. Beemer has stated, the last remaining prehistoric Indian effigy mound in Ke-

nosha County and should be saved to the public. No finer representation of the panther type of effigy exists anywhere in southern Wisconsin. Too many of the state's remarkable and valuable Indian landmarks have already been destroyed by the often ignorant and careless methods of our roadbuilders and we ask our members and friends and landmarks preservation organizations in every part of Wisconsin to protest the impending destruction of this notable Indian memorial.

We would suggest that as many of our friends as can do so motor to this locality and see this mound at their very earliest opportunity. They will be well repaid for the journey.

LAKE MONONA WILD LIFE SANCTUARY ASSOCIATION FIELD MEETING

Theodore T. Brown

Three hundred members and friends of the Lake Monona Wild Life Sanctuary Association met at Frosts Woods, on the southeastern shore of Lake Monona, at Madison, on Friday afternoon, August 26, to be present at the ceremony of the investment of Governor Fred R. Zimmerman as a chief of the Wisconsin Winnebago Indians. The Governor had been honored at Kilbourn during the previous week by being adopted as a member of the tribe, and the name Chaskaga, White Buffalo, given to him.

The Indians to the number of about twenty under the leadership of Silver Tongue and accompanied by their ladies came from Kilbourn to Madison to conduct the ceremony which was performed on the top of the large Indian bird effigy mound near the entrance to the woods by Chief Decorah and Oliver Le Mere. Decorah delivered an address in Winnebago in which he called upon Wakanda to witness the honor to be conferred on the Governor and to give to its recipient his blessings. This address Mr. Le Mere translated for the benefit of the Governor and audience.

The peace pipe was then lighted by Decorah, who drew upon it and pointed it to the four cardinal points. It was

next handed to the Governor who also drew upon it and passed it on to the circle of braves standing behind him on the mound, who also drew upon it as a sign of friendship and brotherhood.

Chief Silver Tongue, one of the most noted of American Indian vocalists, sang several Indian songs in a clear and powerful voice, and was called back for several encores.

Brief addresses on the Indian history and wild life of the Frost's Woods Wild Life Sanctuary were then given by Mr. Charles E. Brown, president of the Lake Monona Wild Life Sanctuary Association; by Dr. Louise P. Kellogg, the noted Wisconsin historian, by Dr. Joseph Schafer, superintendent of the State Historical Society, and Mr. Frank Weston, a director of the Association.

Governor Zimmerman then expressed his appreciation of the great honor conferred upon him by the Winnebago in making him one of their chiefs, and pledged himself to do all in his power to aid the Wisconsin Indians through the State's Indian welfare and conservation program. He expressed his personal interest in the plans of the Association to secure and preserve the woodland as a perpetual Indian camp ground and wild life sanctuary, and urged that all citizens of Madison and the state assist in contributing the money to enable the purchase of the beautiful Frost Woods.

An Indian dance followed in which all of the braves took part.

A circular letter recently sent by the officers of the Association to local and other nature lovers is here re-published for the information of members of the Wisconsin Archeological Society.

LAKE MONONA WILD LIFE SANCTUARY ASSOCIATION
Madison, Wisconsin

President Charles E. Brown
Vice President Mrs. Kathryn Hoebel
Secretary Albert O. Barton
Treasurer Melissa V. Brown

TO SAVE FROST'S WOODS

Dear Friend—

The Association desires to enlist your kind interest and assistance in acquiring and preserving to the citizens of Madison as a Wild Life Sanctuary the fine tract of unspoiled woodland located on the southeast shore of Lake Monona long known as Frost's Woods. This

beautiful lake property, 22 acres in extent and with a shoreline 750 feet in length, is the only tract of its exact nature still remaining on the shores of the upper Madison lakes. Growing on its broad acres are thirty species of forest trees. Over 400 species of native plants, vines and shrubs grow among them, nearly 70 species of wild birds find food and refuge in the forest and along its waterfront. Here occurs also one of the finest groups of prehistoric Indian mounds located about Madison. Several of these are of rare bird and other forms and of immense length.

As a Winnebago Indian camp ground the history of Frost's Woods goes back for a hundred years. Each year small family groups of these forest folk come to camp in this to them sacred spot. Original owners of Madison's lakelands, there is now no spot on the lake shores where they may erect their wigwams without being driven away.

The present efforts of the Association to preserve with the assistance of Madison nature lovers this fine forest as a Wild Life Preserve has received the full approval of the Madison Association of Commerce, the Friends of Our Native Landscape, the Wisconsin Archeological Society and other local organizations. Its many points of scenic and historic interest have been described in and its preservation has been urged by both Madison newspapers.

The Association is offered Frost's woods by its present owner at what its Directors consider a very reasonable price. It is important that the present opportunity to purchase this valuable property should not be lost. Its officers are now conducting a campaign to obtain the funds necessary to its purchase.

May we ask your generous cooperation in contributing to this fund; a subscription blank and a membership blank are enclosed. You may make a contribution or become a member, or do both of these.

We shall be pleased to hear from you.

Sincerely yours,

President
Secretary

P. S.—We also ask your kind assistance in securing contributions from other friends. The \$1.00 Associate Memberships are particularly designed for children who may wish to have a share in the saving of Frost's Woods.

WISCONSIN ARCHEOLOGISTS ARE ASKED TO HELP

Any citizen of the state or of any other state may become a member of the Association. As this undertaking, if successful, will preserve one of the finest groups of prehistoric Indian mounds in the state it is hoped that all members of the Wisconsin Archeological Society will lend their aid by either contributing a dollar or two to the purchase fund or by taking either an annual membership (\$2.00), a sustaining membership (\$5.00), or a life membership (\$25.00). These may be sent to either Mr. Charles E. Brown, 2011 Chadbourne Avenue, Madison, the writer, or to Mr. Frank Weston, Mr. Albert O. Barton and Dr.

Louise P. Kellogg, all members of the Wisconsin Archeological Society, who have all given freely of their time and money to the saving to posterity of this wonderful woodland with its rich Indian, floral and wild animal treasures.

LAKE GENEVA

HISTORICAL SITES ARE DEDICATED

Music and Addresses are Feature of Historical Day Program at Fontana

As a part of the Lake Geneva Air and Water Regatta, dedication services of four markers of Indian history on Geneva Lake were held Thursday, July 28, in Fontana on the hill near Buena Vista. More than three hundred people were assembled. The spot was ideal for such a gathering—in memory of former days of Geneva Lake Indian and pioneer. During the ceremony an Army airplane circled overhead. A platoon of sailors from the Great Lakes Naval Training Station led the procession of Winnebago and Potawatomi Indians, who once occupied this region. Patrols of Girl and Boy Scouts and visitors followed.

A pleasing band concert given by the Royal Scotch Highlanders Band of St. Petersburg, Fla., opened the afternoon ceremonies. Incidental with the concert was a soprano solo sung by Miss Dora Hilton Miller. Other enjoyable solos were played on the bagpipe by "Wee Jamie" Clark, famous piper of the Band, and on the xylophone by George Freborg.

M. A. Healy, in introducing the speakers of the afternoon, spoke briefly of the ensuing program of the regatta and of the historical instances leading up to the Fontana program. Dr. Paul B. Jenkins, of Williams Bay and well-known author of "The Book of Lake Geneva," gave the first address, "Ninety-Six Years Ago."

In his talk, Dr. Jenkins told of the historical incidents surrounding the places on which the four markers were being placed. In connection with the events, Dr. Jenkins spoke of Frank Featherstone, who was present, as one of the earliest settlers who saw the local Potawatomi Indians when some of their band returned to Lake Geneva after

their removal. Mr. Featherstone had been in this county 84 years, he said. An elk horn was also shown which was found in an Indian grave in Fontana.

In conclusion, Dr. Jenkins spoke of the possibility and hope of some day setting aside a perpetual camping ground on the Geneva Lake shores for the Indians, who might then feel free to come and go as they wished.

Charles E. Brown, Madison, director of the State Historical Museum, was the next speaker. Mr. Brown explained that he was undertaking an archeological survey of Geneva and Como lakes under the joint auspices of the Geneva Lake Historical Society and the Wisconsin Archeological Society. Some of the important Indian monuments and sites located in this region had been destroyed but it was expected to locate, explore and preserve others. It was desirable that other markers similar to those at Fontana should be erected and that a museum for the preservation of local Indian and pioneer material should be established. He also stressed the possibility of an Indian camp ground on Geneva Lake.

At the conclusion of his address, he introduced John Gosling, a Chippewa Indian, known as "Whitefeather." Mr. Gosling, in his talk, did not hesitate to criticize the ways of the white people and their attitude toward the Indians.

"Why should you white people take all the credit for discovering America, when we recieved you as guests?" he asked. He claimed that their records were all overshadowed or misinterpreted. The Indians have been put to one side continually, a reason for their backward and timid ways. "There is no place on these shores for a place for the Indians to camp! The beauty of the lake has been robbed. Everything has gone for the 'Mighty Dollar'. 'No trespassing' signs appear everywhere. This government is 'of the people, for the people, by the people', but—keep out!"

Following this address a company of Winnebago Indians performed a war dance and one of their ceremonial dances, "the chicken dance."

The principal marker on the site of Chief Big Foot's early Potawatomi village, 1831, was unveiled by S. B. Chapin. Two verses of "America" were sung meanwhile, accompanied by the band.

This tablet bears the inscription:

"A village of Potawatomi Indians occupied the rising ground west of this point when the first whites visited the lake, May, 1831. The intention of these Indians to join the hostiles in the Black Hawk War of 1832 was defeated by Shabbona, an Ottawa Indian friendly to the whites, who here learned of the impending attack and warned the settlers. The Indian lands were bought by the United States at the great council at Chicago in 1833 and the Indians were removed to western reservations in 1836."

The unveiling of the other three markers was done by the Indian representatives, the Boy and Girl Scouts, under the direction of Doctor Jenkins.

One of these is marked by a tablet on a roadside boulder located opposite Glenwood Springs, near Indian Hills on the south shore of Geneva Lake. The legend on this tablet reads:

"The old Indian trail from the foot of Lake Michigan and to Lake Geneva and on to "The Four Lakes" at Madison passed here—part of a primitive system which practically crossed the continent. The first white visitors, the Kinzie party from Chicago, came this way, May 1831."

The Historical Day program was conducted under the auspices of the Geneva Lake Historical Society. The growing interest aroused by the dedication of these markers, prompted a number of prominent Geneva Lake residents to form the society, on July 15, 1927.

In connection with the dedication ceremonies an exhibit of a case of selected Indian and pioneer articles was made in a window of the Fontana Garage.

WISCONSIN INDIANS IN FARMING

J. F. Wojta, County Agent Leader

EARLY CALL

The first call of the Red Men for help to carry on better farming was sent in by members of the Menominee tribe to the Agricultural Extension Service in September 1914, the occasion being an annual Indian Fair. It was to judge farm crops, livestock, beadwork, blankets, articles made

of buckskin and other Indian exhibits. A talk was given on "How to Grow Root and Other Vegetable Crops", through an interpreter. This was a new form of activity with the Indians and it took so well that a call came again the next year not only from the Menominee group of Indians but from other Indian Reservations in the state for similar assistance in "putting over" this kind of work.

The writer happened to be the speaker at these events and took occasion to explain the value of a four day Farmers' Course, such as the white farmers were receiving with excellent results. This effort resulted in three, four-day Indian Institutes and several two-day Institutes on reservations. The attendance at the institutes ranged from 75 to 400 daily. The interest aroused was so great that the following year, every Indian agency in the state sent in request to the Extension Service of the Agricultural College for educational work in practical agriculture.

INSTITUTES—HOW CONDUCTED

The superintendent in charge of the group usually takes charge of the meeting in cooperation with the Extension Service of the College of Agriculture. The work given is simple, practical and of demonstrational character. An interpreter is used on occasions wherever necessary and convenient. For example, this spring the Red Men were shown how to treat potatoes for scab and cut the tubers for seed; how to prepare the field and plant the seed. Demonstrations were given in the selection of strawberry plants, preparation of bed and method of planting them. Information was not only imparted by lectures but also by lantern slides, moving pictures, charts and real objects under consideration.

Other topics discussed were home gardens, the growing of sweet corn, beets, rutabagas, cucumbers, carrots, beans, onions, poultry and dairy cow management, the construction and value of root cellars and pits.

OBSERVATIONS

The Red Man's vocabulary is limited and he has no words or scientific terms to express ideas as relate to given practices on the farm. It usually takes the interpreter to say

it in two to three times as many words to express the thought in the Indian language as it is given in the English. The speaker must of necessity express the thought in English in as few words as possible in presenting the subject. The Red Men usually ask questions and show a desire to put into practice what they have seen and learned at the meeting.

It is evident that the Indians are beginning to appreciate the fact that government support cannot always continue to come to them and that sooner or later the Indians will have to make their own living. This they can best do by farming and by growing their own food from the soil and raising livestock.

It is not difficult to understand that only meagre results from the Indian as a farmer can be hoped for at the present time, when it is remembered that he has been living an easy and a contented life for generations past making his living chiefly by hunting and fishing. It is a healthy sign that the Indian is in a receptive mood for obtaining agricultural knowledge. The information brought to him on the various phases of farming must therefore be interesting. It must be simple, practical and presented in such a form that he can understand it and make use of it in practical farm operations. Patience and diligence along this line of effort on the part of the white man with the Indian are bound in due time to bear fruitful results.

SOME QUALITIES IN THE INDIAN

The Indian loves to watch the water-fall, move, sparkle, as it passes along down the stream. This awakens in him the quality of motion, restlessness and vivid imagination in his own life. He loves pony races, pow-wow dances, baseball, target and trap pigeon shooting, hunting, fishing and playing his favorite Indian game of lacrosse. This develops quick action in him, and a reasonable amount of pride and satisfaction. When selling the game he secures through hunting and fishing, he is in the habit of getting immediate results and returns. His interests have naturally been developed along such lines of work as involve excitement, action, quick returns, visible results, as lead toward activities of a demonstrational character. The con-

crete rather than the abstract appeals to him. The message that the white man is to bring to the Indian should therefore relate as nearly as is consistent with parallel development in the Indian's life. The mental capabilities of the Indian must first of all be studied and understood before any real practical farm education can take root. The lessons taught the Indian should furnish him with practical ideas on farming; they should be simple and comprehensive, so as to create in him the desire "to do" and to see the particular activity he undertakes to its close.

HIS TEMPERAMENT

Observation of the Indian for the past 12 years leads one to believe that he is suspicious and rather reluctant to submit to authority. Occasionally there appears to be a feeling of lethargy, restlessness and readiness to criticise Indian agents who have to do with them. This criticism may relate itself to unfair distribution of allotment money or some enforced rule which affects his freedom to move about or do as he pleases. He does not relish restrictions placed upon him, but likes to receive sympathy.

AGRICULTURAL IMPROVEMENT

The Indian as a farmer has been in the past, and is today, slow in taking on farm practices. His past history makes him so. In order that he may best succeed in farming, it appears there must be first of all an understanding of the Indian temperament by those who are to guide and direct him in activities of the farm. Interest must be created. His work must fulfill a want and a desire to act. After all, the end to be reached must be satisfactory. I believe these attitudes can be attained, if the Indian farmer is properly handled.

SOME SUGGESTIONS

It is obvious that the best results in the advancement of the agricultural program can be attained by the employment of a full time Indian agricultural agent, whose duties would correspond to those of the County Agent for the white man. Such agricultural agent, that he may function best, should be an observer, with ability to analyze condi-

tions and find solutions to such problems as may confront him. He should be possessed of patience and sympathy. He should gain the Indian's confidence. He should be on the job at all times, with ability to closely follow up the work of the Indian after once started. He must also see to it, that the morale of Indians as a group is maintained. At all times he should stress the idea of the dignity of manual labor with definite goals to be reached.

SUPERVISION

In view of the fact that an Indian reservation geographically is a part of the state and that its agricultural program may be coordinated with the state's program, it would seem that such Indian Agricultural Agent should be under the guidance and direction of the Agricultural Extension Service of the College of Agriculture. This plan of work would tend to promote a state agricultural program of work to its highest degree. It would be efficient and comprehensive.

It was observed that the Indians become easily ruffled, accompanied with a feeling of resentment towards orders emanating from Indian Agents on the reservations. The average Indian appears to be suspicious and rather doubtful at times as to what is best for him to do. He believes he has a grievance. It is "boxed up" and he cannot give vent to his feelings to those who should listen to him.

However, when the writer and other representatives of the college not connected with the Indian Service came to assist as speakers at Indian Farmers' Institutes, Pow wows, and other Indian gatherings, and spoke on various phases of agriculture through an interpreter, there developed a friendly and a wholesome feeling among the Indians. This was particularly true when the Indians present learned that the speakers (White Men) came, gave freely of information and time, without any expense to the Indians; and that no money would be taken out of their tribal funds with which to defray expenses in the conduct of such activity. In a number of cases at the conclusion of the Indian Institute from 2 to 5 leading Indians of the reservation would speak through an interpreter, words of appreciation of the good advice, information, and suggestions the Indians received from their white brothers, the "Wise Men".

LITTLE GREEN LAKE

This small and very pretty lake is located about a mile north of Markesan, and about four and one-half miles south of Green Lake, in a Wisconsin county of that name. Its shape is somewhat irregular. Its extreme length is about one and one fourth miles and its greatest width about one mile. Its area is about one square mile. It is connected with the southwestern end of Green Lake by Le Roy creek which flows from its side.

This lake is in a region occupied in early days of Wisconsin history by Winnebago Indians. Spoon Decorah in his Narrative published in the Wisconsin Historical Collections, in 1895, states that his father's camp in 1814 was at Little Green Lake. His father was the well-known Winnebago chief Grey-headed Decorah. His Winnebago name was War-ra-wi-koo-gah or Bad Spirit. The French called him Zhu-min-a-ka (Firewater).

INDIAN REMAINS

East Shore Camp Site (N $\frac{1}{2}$, SW $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 29)

Evidences of early Indian occupation are found from the Pleasant Point cottages on this shore of Little Green northward over the lands of the Geo. Jackson farm to the Town Miller farm. These also occur on the Geo. Thatcher farm in the rear of Pleasant Point and north of the outlet of the lake. Mr. Town L. Miller and the writer visited this locality on October 20, 1923. Mr. Miller has collected here flint points and leaf shape blanks. Several small pieces of ornamented pottery fragments have been found. Burned and broken stones from Indian fireplaces are scattered over some of these fields. The late Mr. S. D. Mitchell of Green Lake also collected flint and other stone implements here in former years. On the Jackson place the soil is black. Chips and hearth stones are chiefly found on two knolls near the lake bank.

On the Miller farm Mr. T. L. Miller has collected flint points, a blank, a scraper, knife, a "turkey-tail" blue hornstone point, a bone flaker, and potsherds. This place is in the NW. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Section 29.

North Shore Site and Mounds

The land about the shore line of Little Green is fringed with trees. On its north shore there is a high limestone bluff also with trees and patches of woodland.

On the lake shore opposite the Steer farm house and barn Indian corn hills were in 1923 numerous over a small area in a pasture (NW. $\frac{1}{4}$, SE. $\frac{1}{4}$ Sec. 30). Mr. Town L. Miller stated in a letter dated April 24, 1922, that there were then about five or six acres of these hills. His uncle, Mr. Town Miller, who has always resided near this place, informed him that he had known of their existence for about sixty years. They were just growing up to brush again at that time. He concluded that they must have been in use by the Indians at least ten years before that time. Many of these hills were at least a foot in height.

Beyond the Steer house are two mounds which Mr. Town L. Miller had measured and of which he had prepared a plat. One of these, a bear effigy, was partly destroyed when we visited it. It lay within six feet of the edge of the bluff.

Beyond these mounds, in a strip of woodland are several hundred corn hills. They covered an area about one hundred feet long and eighty to one hundred feet in width. These were on the bluff.

No indications of early aboriginal occupation were found in the cultivated fields between the two corn field sites. Indications of a camp site are found on the Town Miller farm east of the last corn field and the mounds.

Charles E. Brown

ARCHEOLOGICAL NOTES

The Milwaukee Museum archeological field party proceeded to the Black River region in Sheboygan County on June 4 and there completed the exploration of a group of Indian mounds originally described by Dr. A. Gerend for the Society. The party then moved to near Juneau and there explored three groups of mounds on the Nitschke farm. The party was in charge of W. C. McKern. Town L. Miller, Alton K. Fisher, members of the Society, Louis Dartt and J. A. Jeske, were members of the expedition. Various other members of the Society visited the party in the field.

A. P. Kannnberg, R. N. Buckstaff and Geo. Overton, of the Winnebago County Archeological and Historical Society, excavated and removed to the Oshkosh Public Museum the contents (three flexed burials) of a conical mound located near Leonards Point, Lake Butte des Morts.

C. E. Brown, Theodore T. Brown and other members of the Society have been conducting an archeological survey of Lake Geneva and Lake Como for the Geneva Lake Historical Society. This work is progressing well. The Society has marked with bronze tablets the Chicago-Lake Geneva trail and the site of Chief Big Foot's early Potawatomi village, at and near Fontana.

Business men of Galesville, in response to the urging of members of the Society, have cleared of brush and are preserving a fine group of effigy and other mounds located on the Davidson property near that city. The preservation of another group at Trempealeau by the purchase and addition of the land to Perrot State Park is receiving attention.

A fine bronze tablet now being cast by the Heath Co., Waukegan, is to be erected at Aztalan Mound Park near Lake Mills, one of the state archeological parks which the Society owns. This may be unveiled in October.

Charles G. Weyl, Fountain City, is rendering valuable aid to the Society by conducting investigations in the Upper Mississippi Valley near his home.

The Iowa D. A. R. have erected a marker at the foot of the old Military Trail, three miles north of McGregor. This is the trail which the Fort Crawford, Prairie du Chien, soldiers built in 1840 to carry supplies to Fort Atkinson. It was used between the two forts for eight years.

L. G. Roche, Devils Lake, has published a new "Devils Lake Guide". It is very interesting and well illustrated and should be appreciated by all persons visiting the state park. The principal Indian effigy and other mounds in and near the park are described and some are illustrated.

The Palimpsest issue of June 1927 is devoted to a very instructive paper by Charles R. Keyes on "Prehistoric Man in Iowa."

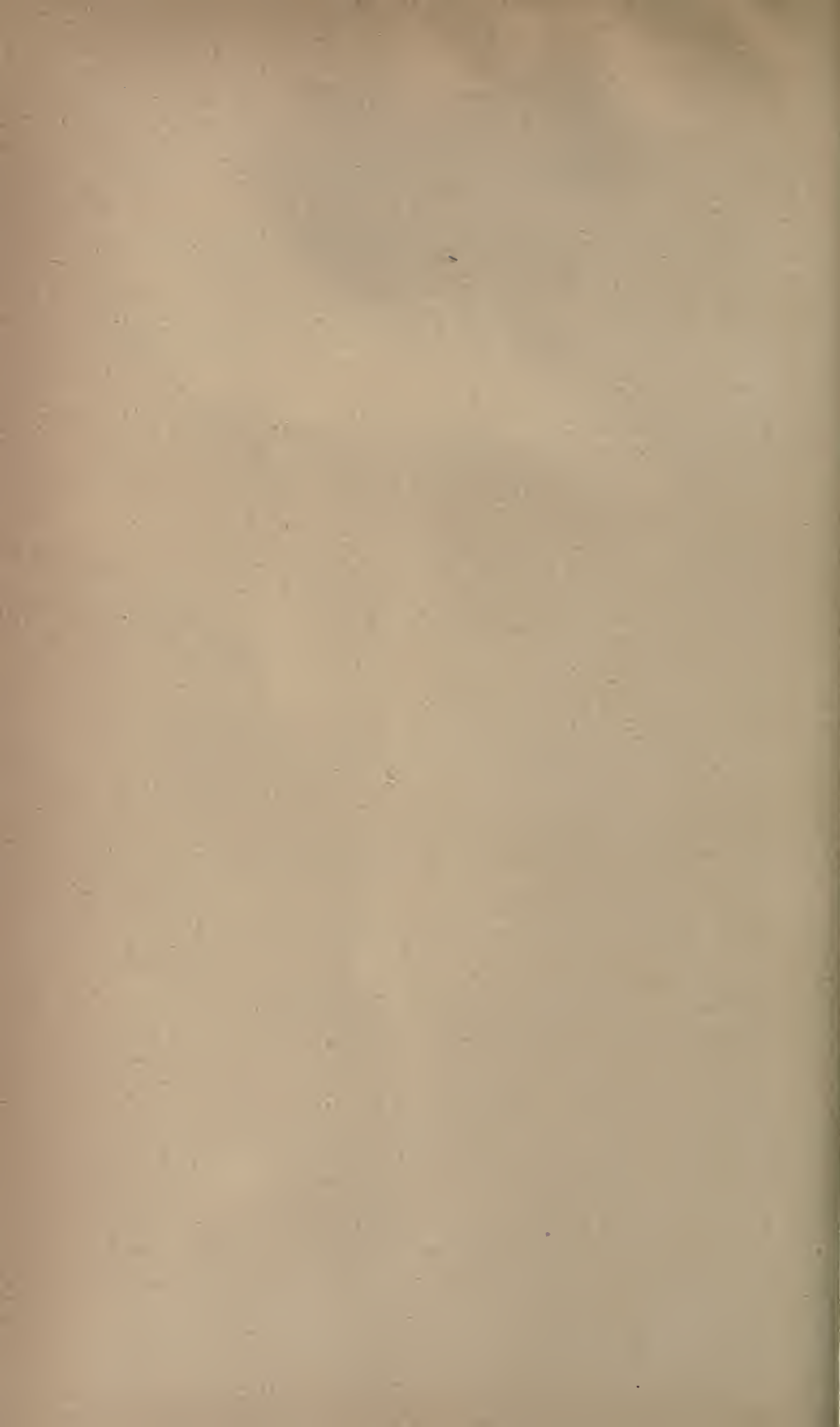
The Wisconsin Historical Society has published a new book, "Four Wisconsin Counties—Prairie and Forest", by Dr. Joseph Schafer. The counties studied are Racine and Kenosha, prairie counties, and Milwaukee and Ozaukee, in the heavily forested region. A chapter is devoted to the archeological history of this section of the state.

The August to October issue of The Land O'7000 Lakes Journal published by C. H. Pactzold at Wausau is a particularly interesting and well illustrated number.

The September issue of The Wisconsin Magazine, Hardy Steeholm, editor, contains the usual number of interesting articles. One describes the celebration of the 100th anniversary of Shullsburg.

The July 1927 issue of "Indian Notes", published by the Museum of the American Indian, Heye Foundation, New York, contains a number of interesting articles, among them "A Creek Site in Georgia", "Antler Implements from New York" and "River Desert Indians of Quebec".

Any person interested in the Indian history of Wisconsin or in the aboriginal monuments and sites of the state may become a member of the Wisconsin Archeological Society.



The Wisconsin Archeologist

Vol. 7

December, 1927
NEW SERIES

No. 1



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

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THE ANTIQUITIES OF EGYPT
GENERAL GEORGE ROGERS CLARK
ON AMERICAN ANTIQUITIES
NATIVE COPPER HARPOON POINTS



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WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held,

MEMBERSHIP FEES

Life Members, \$25.00

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All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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CAIRO MUSEUM

The Wisconsin Archeologist

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Vol. 7

MADISON, WIS., DECEMBER, 1927
New Series

No. 1

THE ANTIQUITIES OF EGYPT

GEORGE A. WEST

The Rev. Josiah Strong, D. D., in a lecture well said: "No civilization can be understood without a study of the physical conditions under which it was developed. Latitude, temperature, humidity, the elevation and conformation of the land, soil, proximity to the sea, the existence of great rivers, have all had a profound influence in determining the occupation, habits, characteristics, customs, laws, government, religion and social institutions of all peoples, and especially of ancient peoples."

Antiquity

The extreme antiquity of Egypt's civilization deeply impresses the student. Many stone tools of a most primitive type have been found there. There implements range from the roughly hewn stone axe to finely chipped knives and polished tools of the Neolithic period. The Valley of the Nile seems to have been inhabited for many ages of the prehistoric past. The Egyptian race was doubtless developed from various elements contributed by Asia, Africa and even Europe. It seems certain that during long periods of time various peoples, differing in origin, language and religion, amalgamated, bringing about this result. It is not to be wondered at that primitive man chose the Valley of the Nile as a place of residence at a very early period and has remained there ever since in gradually increasing numbers.

All ancient oriental civilizations of history have arisen in the valleys of great rivers. Primitive man the world over would naturally choose locations on streams or bodies of water which would furnish him a source of food supply as

well as transportation. Nowhere in the world have people been so dependent on a stream as the Egyptians have on the Nile. This great stream is more than 4000 miles long, and ranks as one of the four largest rivers in the world. It has no affluent for the last 1000 miles before reaching the Mediterranean. Much of its waters are diverted for irrigation purposes, besides supplying the daily needs of nearly 13,000,000 people. The evaporation is very great and yet, at low water, it is said to pour into the sea 61,500 cubic feet of water per second.

While it seldom rains in Egypt, owing to heavy rains in Equatorial Africa the Nile overflows each year, beginning late in June and subsiding completely before December. The annual overflow leaves a fertilizing deposit. The Ancients attributed this annual overflow to the tears of Isis shed over the tomb of Osiris.

Except at its mouth, which forms a great delta, the valley of the Nile is from two to eight miles wide, bounded on one side by the Libyan and on the other by the Arabian desert.

During the third century before Christ, Manetho, an Egyptian priest, wrote a history of Egypt in which he claimed that the reigns of the gods and demi-gods of that country lasted about 12,843 years of prehistoric time. Some evidence has been found to support this theory. The rulers were doubtless petty chiefs who ruled over small principalities.

Abstract of Egyptian History

The Egyptians measured time, since the happening of events, from the year of the King's reign or of his reigning family, in which they occurred. Manetho furnished an almost interminable list of Egyptian kings which have been divided into thirty families or dynasties, and for convenience have been subdivided into four historic periods. Becoming familiar with these divisions is desirable for the tourist student in order that he may fix the age, so far as known, of important remains that he may encounter during his Egyptian tour. No chronological list of all the kings has yet been found. Several partial lists have been

discovered, but great gaps of time exist, making the exact age of the very old Egyptian remains uncertain. The four main periods of Egyptian history are:

Old Empire -----	1st to Xth dynasty
Middle Empire -----	XIth to XVIIth dynasty
New Empire -----	XVIIIth to XXIVth dynasty
Late Egyptian Period -----	XXVth to XXXth dynasty

Following were Greek and Roman periods.

The Old Empire

Menes is credited with being the first dynastic king. The date of his reign according to Mariette, an excellent authority, was from 5004 B. C. The Cairo Museum catalogue, however, makes it 3800 B. C. The Old Empire extended to 2500 B. C. Menes founded Memphis. Metals were known to his people and the art of writing practiced by them. He is said to have died of a wound given by a hippopotamus. The tomb of Menes was discovered near Naquada. It, like those of some of his successors, was of great size, built of sun-dried brick and lined with wood. The early part of the Old Empire was noted for its rapid development of civilization and its industrial and artistic progress. According to John Antioch, the Nile flowed with honey for eleven days. During this period the Step Pyramid and those of Giza were built.

The Middle Empire

The Middle Empire was not young when Abraham visited Egypt, and one of the latest kings of this period made Joseph governor. The Shepherd Kings ruled from the thirteenth to the seventeenth dynasty—nearly 500 years—and were the taskmasters of the Israelites.

The New Empire

The New Empire began about 1600 B. C. The eighteenth and nineteenth dynasty of this period advanced with leaps and bounds. "On the walls of Karnak are carved the names of 628 conquered nations and cities."

The Late Egyptian Period

The Late Egyptian Period included the twenty-fifth to the thirtieth dynasties, the Ethiopian and Persian conquest to about 350 B. C., and then followed the Greek and Roman conquests to 30 B. C., which continued about 700 years, ending with the Roman rule.

Even though these four periods are but briefly outlined, they are sufficient to assist the student in classifying and remembering the happening of important events of Egypt's ancient past.

Alexandria

It was the seventh day of March, 1927, when our ship, the Rotterdam, sailed into the bay of Alexandria, past the place where the earliest lighthouse in the world once towered some 600 feet above passing vessels. Its summit was illuminated at night by great fires as a guide to the mariners of that day. It was erected about 280 B. C., and withstood earthquakes and the ravages of time for 1700 years. It was justly considered in that age as one of the wonders of the world. A feeling of reverence crept over us as before us appeared a panoramic view of the city that was the pride of the great Conqueror who founded it about 2260 years ago and hoped to make it the capital of the world. A city built of materials brought from the ruins of Memphis, the product of what was even at that time an ancient civilization; a city that became the meeting place of four great peoples—the Greek, the Roman, the Hebrew and the Oriental. The place of residence of Ptolemy, the astronomer; Philo, the philosopher; Apollos and Barnabas, who accompanied Paul on his journeys, and of Cleopatra who ruled Egypt for 21 years. But more than all, the home of Mark, the author of the second Gospel. The seat of the schools of history and the great library founded by Ptolemy was located here. This library in 47 B. C. contained 700,000 rolls, a large part of which was destroyed by a great fire which spread from a burning fleet. In Roman times when the Christians sacked the town, the chief part of it is said to have been destroyed. The fate of the re-

maining part of it is unknown. The story of the destruction of the books by order of Caliph Osmar is unfounded. The two obelisks, known as Cleopatra's Needles, were removed from here, one to the bank of the Thames, London, in 1878, and the other to Central Park, New York, in 1881.

During the third and second centuries, B. C., Alexandria became the center of Greek intellectual life, but with the Arabian conquest a period of swift decay followed. It has suffered from wars, internal strife and massacres, but to-day is a prosperous commercial city of 450,000. Outside of its historical associations it is of little interest to the tourist, as its streets have been raised fifteen feet thus covering up evidences of its former glory.

On the Way to Cairo

Upon reaching the dock at Alexandria, Mrs. West and the writer soon enjoyed the thrill of setting foot upon the sacred soil of Egypt. After passing through the customs house and along great warehouses, piled high with bales of cotton, we boarded a train for Cairo, one hundred and twenty-five miles up the Nile. While waiting for the starting signal, we were besieged by numerous fruit-venders, snake charmers and other fakers. For the first few miles the train bordered a shallow sheet of water called "Lake Moreotis", which now covers more than one hundred thousand acres of what was at one time fine agricultural land. Formerly a narrow ridge separated a fresh water lake from the Mediterranean, but the British, in besieging Alexandria in 1801, in an attempt to cut off the water supply cut the ridge thus allowing the salt water of the sea to enter—an act much to be regretted as it has resulted not only in the loss of much valuable land, but the expense of continuous pumping out of a million tons of water each twenty-four hours.

Irrigation canals paralleled the railroad much of the way to Cairo. Hundreds of small one-man boats, propelled by long pointed sails when the wind blows, and when not by an oar or pole, were passing through these highways of commerce loaded with products of the country. As we proceeded southward, the valley narrowed and the sand dunes

of the deserts became visible on either side. Cultivation here is intense; no land is wasted by hedges or line fences. Four crops a year are possible; the methods of cultivation almost primitive. The same sort of one-handed plow used at the time of Moses is still in service now. After a tract is plowed, a number of men follow with short-handled, back-breaking hoes in order to break up the clods of earth and turn over the sod. These hoes are very heavy and the user lifts the hoe and lets it fall of its own weight. An American harrow would do the work of fifty Arabs with their hoes. The wheat was headed out and the alfalfa being harvested by men squatting down and cutting it with the sickle. While their methods to us seem to be a waste of time, yet Egypt is over-populated and it is well that the people are kept busy. Their principal beast of burden is the water buffalo. It was not uncommon to see a tandem team consisting of a water-buffalo, a donkey and a camel, drawing a plough. We frequently passed caravans of camels loaded with cotton and other farm products. Donkeys are commonly used for riding purposes, and we often saw two or three persons riding a small donkey.

The Arab villages we passed were unique and much alike. They were usually built near a grove of dust covered palms. The streets were narrow, and the houses usually one story in height, built of mud with a flat roof, sometimes covered with corn stalks as a protection from the sun, and with no windows. These houses were usually attached to each other or close together and appearing from the distance like old ruins. Now and then we saw flocks of black sheep. When four o'clock came—the hour of prayer—the workers in the field bathed their faces and hands and, facing the East, bowed in prayer to Allah. Because of the intense heat, all work in Egypt ceases from 11 A. M. to 3 P. M.

As our train approached Cairo and the Great Pyramid appeared in the distance, we felt that the dream of our lives was about to be realized. As we reached our hotel, The Continental, we found the walk in front of the same well filled with Egyptian Arab guides, or dragomen, dressed in native costumes and who could speak English, anxiously waiting to serve us.

Cairo

Cairo, the capital of Egypt, is a very modern city of nearly a million people. Here sunshine and colors meet the eye. Here civilization and semi-barbarism intermingle. Here one encounters every tint of skin and various phases of existence, all of which excites a deep interest.

Old Cairo was founded about 525 B. C. It has been the scene of many conquests. Its history is darkened by a series of cruelties and tyrannies suffered at the hands of different rulers. Cairo with its thousand minarets of Mohammedan mosques, reminds one of Constantinople, the center of Islam.

The Pyramids of Giza

After a five-mile trip by auto from Cairo, we arrived at Giza. From here part of the tourists reached the pyramids by sand carts and the remainder by camels, which conveyances were unnecessary as the round of pyramids and sphinx can be made by auto. We would warn tourists to guard against the imposition of peddlers, camel and donkey boys.

These pyramids are one of the five groups to be found in southern Egypt. They are among the oldest and greatest of Egyptian monuments. They indicate the dignity and power of Egyptian kings and the sacrifices made by the common people in their construction. They are simply tombs or burial places of Egyptian rulers who spent the period of their reigns in building tombs and preparing for their death. The Egyptians believed in the immortality of the soul and the existence of the body after death in some form or other. This was one reason for the practice of mummification. It was the custom to deposit in or near the tomb of the deceased such of his belongings as were thought to be necessary for his use after death. The three principal pyramids of this group are still well preserved.

The Great Pyramid

The Great Pyramid or the Pyramid of Cheops was built during the fourth dynasty and has withstood the ravages

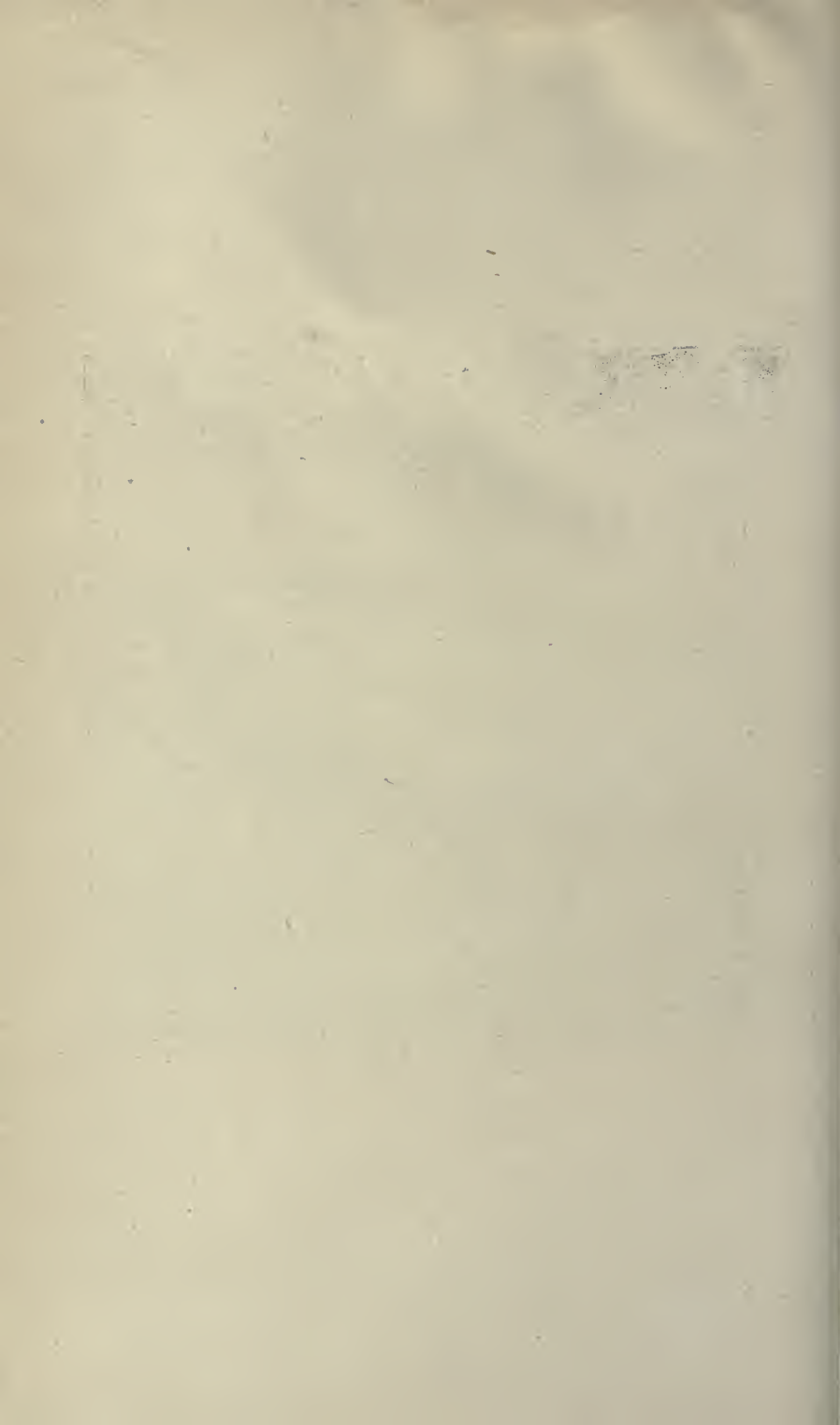
of more than 5000 years, although its interior has suffered from treasure seekers and its exterior casings have been removed and used for the construction of mosques of ancient Cairo. The area covered by the Great Pyramid is nearly 13 acres. It is 746 feet square at its base without allowing 10 feet more for the outer casing. Its perpendicular height is now 450 feet but originally was about 480 feet, with a cubic content of three million cubic yards. Some of the casing blocks still to be found among the debris on the north side of the pyramid indicate remarkable exactness in fitting and finish. The principal material from which the pyramid was built was limestone quarried across the river near old Cairo, and the granite used came from far up the Nile. The blocks of stone weighed from $2\frac{1}{2}$ to 40 tons each.

From Herodotus, the historian, we learn that Cheops, during his reign, plunged into every kind of wickedness, shut up all the temples, forbade the offer of sacrifices and ordered all Egyptians to work for him. They were compelled to quarry and transport stone across the river for the building of the Great Pyramid and worked to the number of 100,000 men at a time, each party working for three months. The time during which the people were thus harassed by toil lasted ten years in building a road over which the rock could be drawn for the pyramid. Twenty years were spent in erecting the pyramid itself.

The entrance to this pyramid, like all others, is on the north side. It is about 45 feet above the ground. A passageway 320 feet long, $3\frac{1}{4}$ feet high and 4 feet wide leads to a subterranean chamber in hewn rock, apparently intended as a burial chamber when the pyramid was first designed. This passage is now blocked by an iron grating, the chamber not being accessible. About 20 yards from the entrance the passage begins to ascend. Here is to be found one of the huge granite doors called "portcullises" calculated to bar further progress of the ancient treasure seekers, who, however, forced their way around it. The ascending passage is 125 feet long, narrow and slippery. This leads to the Great Hall which is 155 feet long and 28 feet high. From this a horizontal passage leads to the



PYRAMID OF CHEOPS
Plate 1



Queen's Chamber. This is a room about 18 feet long by 17 feet wide, having a pointed roof—a beautiful piece of mason work. From the large hall leads a passage 22 feet long which opens into a small antechamber or King's Chamber which was originally closed by four granite falling doors of a grooved pattern. The King's Chamber is lined with granite and measures about 35' x 17' x 19'. Two air shafts measuring 234 feet and 174 feet in length, respectively, and having a diameter of about 8 inches, extend from these chambers to the outside. In the King's Chamber is the empty, coverless, broken red granite sarcophagus of Cheops.

“Mastaba” Tombs Near the Pyramids

“Mastaba” is Arabic and means a kind of bench or platform. It is, in fact, a flat-roofed type of tomb. It is not surprising that much time and money were spent by those who could afford it in building substantial tombs as the Egyptian believed that his welfare after death depended on his having a safe and solid tomb. This was certainly not encouraging to the poor and unfortunate who could not afford to build themselves such tombs. They, however, contented themselves by being buried around about the large tomb of someone upon whom they were dependent in the hope that they might under his protection be able to enter the next world.

In the vicinity of the Pyramids of Giza existed at one time several smaller pyramids, being the tombs of relatives of the pyramid builders. There were also found Mastaba tombs of nobles and courtiers in the time of the pyramid building kings. Excavation of this part of the Giza Cemetery is still in progress under Dr. Reisner of Harvard, and not accessible to the public.

Second Pyramid and Sphinx

The Pyramid of Chephren is nearly as large as that of Cheops and has suffered less from the ravages of time. A large portion of the outer casing on the upper part of the pyramid is still intact. The Great Sphinx and its temple

are connected to the second pyramid by a causeway that is clearly discernible.

The Great Sphinx, which has excited the wonder of the civilized world, is 66 feet in height and 187 feet in length, hewn out of solid rock. Its age is unknown and may belong to the pre-dynastic period. Its face had been damaged and disfigured but recently restored. The encroaching desert sands have more than once hidden the paws completely. Between its paws stands a memorial stone which gives an account of the clearance of sand in ancient times. The remains of black brick walls show another attempt made in Roman times to protect it from the sand. In 1886 it was entirely uncovered and again in 1926, giving us an opportunity of seeing it at its best.

The Third Pyramid

This is known as the Pyramid of Mycerinus and is much smaller than either of the others. It must have been striking in appearance as its lower half was cased with red Aswan granite; the upper part of Moqattam limestone. The length of its side is 356½ feet; its height 204 feet. From its original entrance, far inside the masonry, is a short sloping passage leading down to the burial chamber. This passageway slopes downward 104 feet, then horizontally for a few feet, through an ante-chamber, continuing for about 42 feet on the level, then entering the burial chamber. A large stone sarcophagus was found in this chamber in the 19th century by one of the earlier explorers and shipped to the British Museum but was unfortunately lost at sea.

The Giza Tomb of the Mother of Cheops

On March 11, 1927, in "The Egyptian Mail", a newspaper published in Cairo, Dr. Reisner of Harvard describes the discovery of the tomb of Queen Hetepheres in March, 1925, reopened on January 21st of this year and the removal of the objects begun on February 5th. In April the person buried in the tomb was identified as Queen Hetepheres, the mother of Cheops, builder of the Great Pyramid.

From the confusion in the chamber it was concluded that the deposit was a reburial. The original tomb of Queen Hetepheres was built by her husband Sneferuw beside his pyramid at Dahshur. She outlived her husband, and, Dr. Reisner believes, was buried by her son, Cheops; that thieves broke into the tomb at Dahshur and when the fact was discovered, Cheops ordered a reburial at Giza where she was left to lie for five thousands years, forgotten and undisturbed, beside the great monument of her son at Giza.*

The Giza Tomb

The Giza Tomb was a rectangular shaft in the solid limestone, one hundred feet deep, ending in a chamber about ten by fifteen feet in size. After the burial, the shaft had been filled with rock set in sulphate of lime and the mouth closed with surface stone laid to match the surrounding rock. The chamber was still unfinished when the contents of the Dahshur tomb arrived as the tools of the masons and chips of stone left on the floor of the tomb indicate.

When the reburial took place, among the deposits in the tomb were six boxes containing linen; others containing stone vessels, pottery and even the rubbish left by the thieves on the floor. With the lapse of time the boxes of wood and the wooden parts of furniture decayed or were destroyed by fungus. The objects and fragments contained in the boxes became a confused mass. The gold sheaths of the furniture and the inlays on the panels sank down in layers on the floor, all of which, according to Dr. Reisner, has yielded certain deductions as to the history of the deposit.

Beside the sarcophagus was found a wooden box cased in patterned sheets of gold. The lid was inscribed,—“The mother of the King of Upper and Lower Egypt,

* It is later reported that the time Dr. Reisner's article was published the sarcophagus had not been opened and that when the cover was removed, to the astonishment of the scientists, the mummy of the mother of Cheops was not there. Why the builder of the Great Pyramid of Giza should have expended so much labor on a tomb just for the concealment of the personal trappings of his mother is clouded in mystery.

Hetepheres." This box contained seven rings. Inside were two sets of ten anklets, each graduated to fit the swelling of the leg. Each anklet was inlaid with four glorified dragon-flies in malachite, lapis lazuli and red carnelian separated by four discs of red carnelian. The dragon-fly has eight wings instead of four. A number of small implements, four of gold, 12 of copper and 15 of flint, were discovered in this tomb, possibly indicating the transition from flint to metal. A large number of other implements of gold and copper, several gold cups, many vessels of alabaster, large ointment jars, wine jars with their stands in one piece, one of them with a spout, and bowls of various sizes for use at the table, were also found. It is further stated that much has been learned by the opening of this tomb that is curious concerning the shrinkage of wood during 5000 years passed in a close chamber underground. It was found that parts of a carrying chair and other pieces of wood had shrunk to about two-thirds of their original length and about one-half of their original width in thickness; that they were not much heavier than feathers.

Missing Amulets

"The general impression given by the contents of the tomb is that of an Egypt which will appear strange to the layman. All those fantastic things are wanting which the public regard as typically Egyptian, — shawwabtis, the amulets, and all the magical apparatus which was created by the Egyptian imagination of later times to combat the obscure dangers of the other world. In the early Fourth Dynasty, men were more deeply concerned with providing the means of life after death similar to the life on earth, and the equipment of the tomb was more nearly a reflection of the equipment of life."

Queen Hetepheres lived in an age when Egypt and its monuments presented a very different appearance from that seen by the modern traveller. "All the great temples of Upper Egypt and even the tombs of Giza and Sakkara which the traveller sees are the work of later reigns or later dynasties. In her time Egyptian culture was still a creative force and the powers of the craftsmen, in particu-

lar those of the masons and sculptors, were only approaching their culmination. The tomb of Queen Hetepheres is significant of that great age, of its common sense materialism, its dependance on the past, and its promise for the great monuments to come; for when she lived the greatness of Egypt lay unknown in the future."

Heliopolis

A short ride by auto brought us to the site of Old Heliopolis or City of On where Joseph and Asenath, daughter of the High Priest, met (Gen. 41: 45, 50; 46: 20); where Moses was made acquainted with the secrets of Egyptian priesthood, and where grew the "Virgin's Tree" under which the Holy Family rested after their flight from Herod to Egypt. The spring which Jesus Christ is said to have changed from brackish to sweet water is still there. The water of all neighboring springs is brackish.

During the twentieth dynasty the temple of learning at Heliopolis was one of the largest and wealthiest in all Egypt, its staff being numbered by thousands. From here was obtained a large number of Egyptian manuscripts for the great library at Alexandria. The obelisk of Central Park, New York, and the one now on the Thames embankment stood here for 1500 years before being taken by Cleopatra to Alexandria, from whence they were removed to their present locations.

About all that remains to mark the site of this historic place is a single obelisk, being the most ancient of all in Egypt excepting the one at Luxor erected by Queen Hastasu. This obelisk bears an inscription in hieroglyphics which states that it was erected about 2433 B. C. on the festival of Set, God of the Impure, by Sesostris I, King of Upper and lower Egypt, lord of the diadems and son of the Sun, whom the divine spirits of On, or Heliopolis—the City of the Sun—love.

The site of this ancient city, in 1517 A. D., was the scene of a great battle which brought Egypt under the rule of the Turks, and here later 10,000 French soldiers defeated an army 60,000 strong from Egypt and regained Cairo for a short time.

After the removal of the priesthood and sages of the temple to Alexandria by Ptolemy II., the decadence of Heliopolis was rapid and the greater part of it, as reported by Strabo, was in ruins in B. C. 24.

Upon our return to Cairo and after making the rounds of its mosques and bazaars, Old Cairo was visited. From the citadel a wonderful view of the Nile and surrounding country was had. Nearby is the quarry from which the rock was taken for the building of the pyramids at Giza. Below is the cemetery of the kings following the dynastic period containing some very beautiful sarcophagi. On the bank of the Nile was pointed out to us the place where Moses is said to have been found among the bullrushes.

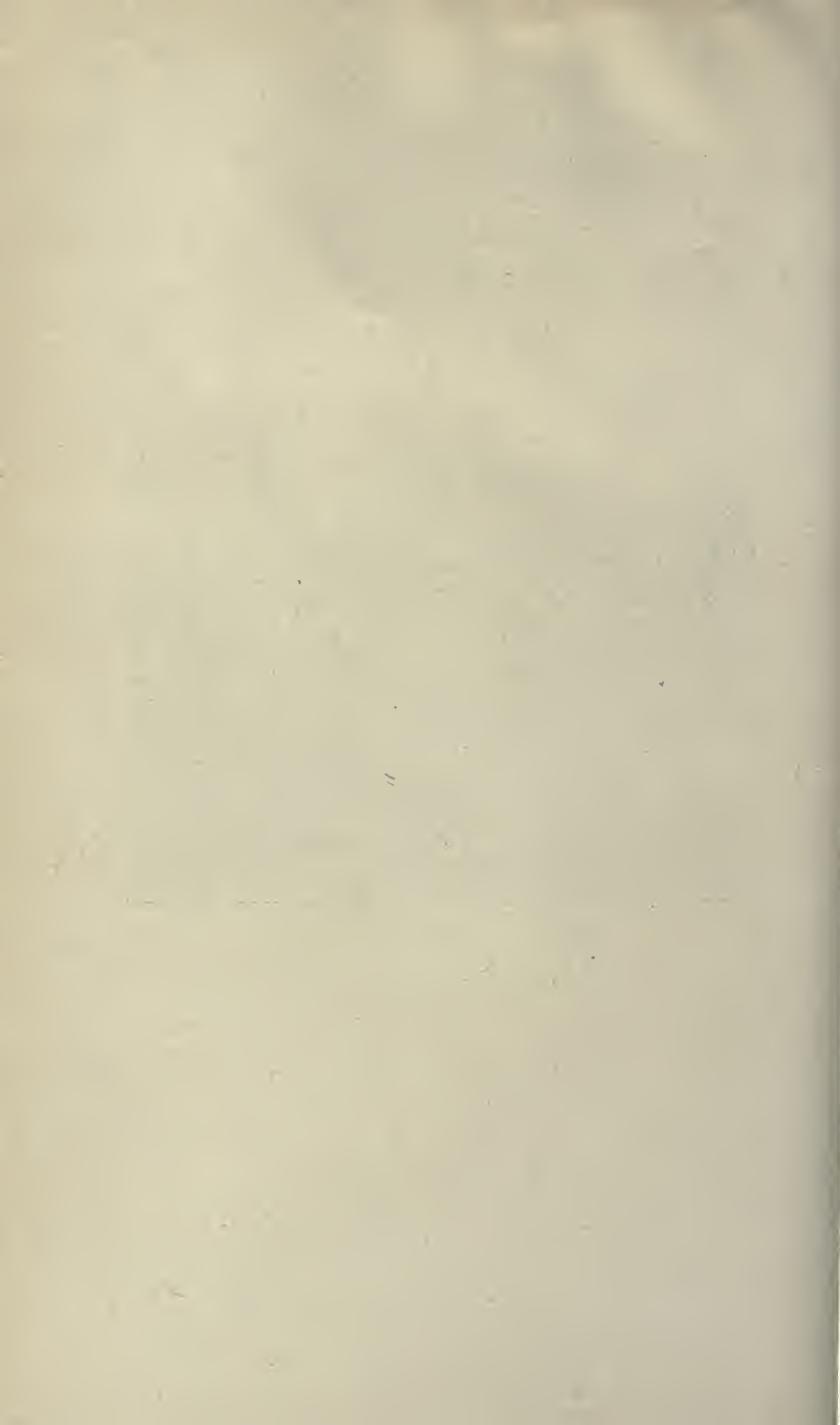
Memphis and Sakkara

A delightful ride of three hours up the Nile by river steamer brought us to Badreshein. Picturesque boats with white lateen sails were passed. The Nile is bordered by verdant fields and groves of the ever present palm tree, the level contour being broken by the Mokattam hills in the far distance. Upon our arrival at Badreshein donkeys and desert carts—the taxies of the desert—awaited us. Our first few miles lead through ancient Memphis—the Noph of the Bible, which seems to mean “the abode of the good” or “the tomb of the good man,” i. e., Osiris. It was celebrated for the worship of the god Path, “the creative power.” Memphis belongs to the era of the pyramids. It was founded by Menes, the first king of United Egypt. All that remains of the city is a succession of mounds covered with a growth of palm.

The first monument to be encountered was a prone statue of Rameses II. discovered in 1888. It is of black granite 32½ feet long including its crown. A short distance beyond this statue is a gigantic andro-sphinx of alabaster, 26 feet long and 14 feet high, weighing about 80 tons, discovered in 1912. Nearby is a second Colossus of Rameses II, being 42 feet long, made of a fine-grained limestone and housed in a mud hut with a flight of wooden stairs leading to a platform where visitors are enabled to look down upon the statue.



SAKARA ALABASTER SPHINX
Plate 2



We next passed through picturesque country cultivated in the same manner as was done thousands of years ago. As the road rose to the desert, before us lay Sakkara, the great cemetery of the once capital of Egypt—Memphis. This wonderful burial place is $4\frac{1}{3}$ miles long and about one-fourth of a mile in width, and contains amazing tombs of men and of animals held sacred such as the Apis bulls, dogs, cats, monkeys, etc.

The Step Pyramid, one of the oldest surviving monuments of the past, is located here, and was built by King Zoser of the third dynasty. Its perpendicular height is 200 feet. It has receding stages that range from 37 to 39 feet in height. It is believed to be the oldest of the pyramids.

The Tombs of Apis

In these tombs were interred with great ceremony the embalmed sacred bull of the God of Ptah. They probably form the most magnificent structure of lower Egypt. One gallery after another was added until the aggregate of 1040 feet was reached, the gallery being about 10 feet wide and $17\frac{1}{2}$ feet high, all hewn out of the solid rock. In the various chambers are to be found huge sarcophagi of the mummied bulls, each coffin averaging 13 feet in length, 7 feet in width and 11 feet in height, and weighing not less than 65 tons.

The Mastaba of Ptahhotep is a most elaborately decorated tomb, dating from the fifth dynasty, and contains some of the best examples of Egyptian art. This tomb, like several others at Sakkara, was originally built above the ground and contained windows, corridors and chambers, the tomb being cut from solid rock far beneath the Mastaba.

Another place of interest is the Tomb of Mereruka with no less than 31 rooms and with hundreds of scenes engraved upon its walls.

Space will not permit the description of the many other pyramids and tombs that are to be seen at Sakkara.

Luxor

A 500-mile trip by train landed us at Luxor—Upper Egypt. Across from our hotel, the Winter Palace at Luxor,

lies the site of ancient Thebes. We first visited the Luxor Temple built on the right bank of the Nile which is imposing, but compared with Karnak is not of great importance. Until recent years the greater part of its courts and chambers were buried by the accumulation of ages upon which a large number of houses stood. It was built about 1500 B. C. and probably occupies the site of an earlier religious edifice. It is 852 feet long and nearly 180 feet wide. It was connected with Karnak by a paved avenue three miles long and 80 feet wide, bordered on either side by a row of sphinxes. This temple contains a number of colossal statues of Rameses II., at the base of each of which is usually a small relief of his queen. She, taking offense at this, caused to be made and set up at this temple a colossal statue of herself.

Temple of Karnak

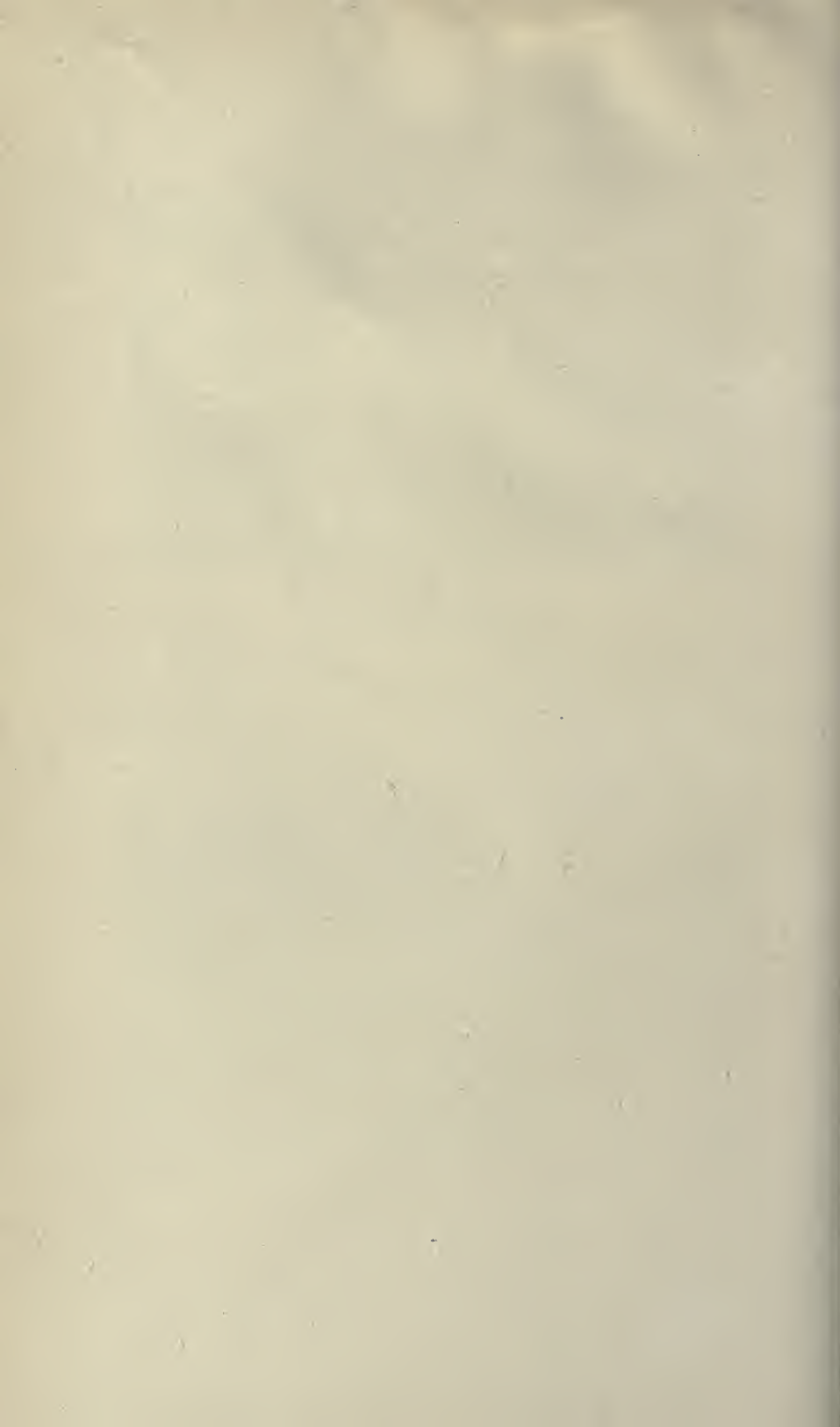
The ruins of Karnak are the grandest the world has ever seen. Some of its gigantic temples and stately halls date from about 4500 B. C. The enclosure at Karnak contains about 26 acres filled with the ruins of temples dedicated to the various Gods of which the great Temple of Amon is the largest. This temple faces the Nile and was approached from that direction by an avenue of sphinxes. Of the many temples, halls and courts erected and added to by successive kings, we found the "Hall of Columns" the most interesting. Twelve columns, about sixty feet high and thirty-five feet in circumference, form a double row through the centre; the side columns, one hundred and twenty-two in number, are forty feet high and twenty-seven feet in circumference. Rameses I. contributed one column; Seti I., who built the hall, erected seventy-nine, and the remaining fifty-four were set up by Rameses II. The columns are thought to have supported a massive roof of rock. The original structure was simple in form, but by reason of many additions made by different kings, each of which attempted to outdo the other by adding superior embellishments, has become complex and confusing. The inscriptions upon the walls, columns and tablets are records of the achievements



LUXOR
Plate 3



AVENUE OF SPHINXES
KARNAK
Plate 4



of the old Pharaohs and their generals, or their songs and prayers offered to the gods and goddesses of ancient Egypt.

The Great Hypostyle Hall deserves special mention as it is one of the most wonderful buildings of all Egypt. Its roof was supported by 134 columns, 80 feet high and 30 feet thick. It is 338 feet long and 170 feet wide, its area being 6,000 square feet. The magnitude and grandeur of such a forest of massive inscribed columns cannot be appreciated unless seen.

Four great granite obelisks erected by Thuthmosis once stood before this temple. One still remains standing. It is about $75\frac{1}{2}$ feet high and stands on a base but six feet square. This obelisk is inscribed on each side from top to bottom and refers to "Horus, Mighty Bull, King of Upper and Lower Egypt", etc.

The Colonnade was originally embellished with columns and niches containing colossal statues of Osiris. Here stood two obelisks of Queen Hatshepsut, both of pink granite, their tops covered with electrum—a mixture of gold and silver. One obelisk is overthrown and broken. The other is still standing and is about 97 feet high. It is the second highest obelisk in the world.

In a chamber in the southwest corner of the Great Festival Hall was found the famous Karnak Tablet giving a list of Egyptian kings from the earliest times to the time of the eighteenth dynasty. The same can now be seen in the Bibliotheque Nationale, Paris. Near one of the Sacred Lakes of Karnak is to be seen a gigantic granite scarab weighing several tons. There are other evidences without number of the glory and splendor of Egypt four thousand years ago.

Valley of the Tombs of the Kings

After crossing the Nile from Luxor, a carriage ride of about seven miles over a dry and barren sandy plain brought us to the Theban Hills which culminate in a height of about 1600 feet, where a ridge of jagged cliffs separate the Libyan desert from the Valley of the Nile. The road then follows a deep, narrow crescent-shaped torrent bed for about three miles to the place which, because of its isolation

and dryness, more than sixty ancient kings chose as their burial places. It scarcely ever rains here. No clouds darken the sky. The sand is white and glaring; the valley hot, desolate and barren.

Lord Carnarvon worked for nearly fifteen years and moved nearly 200,000 tons of rock and rubbish when in 1922 his efforts were rewarded by the discovery of Tut's tomb.

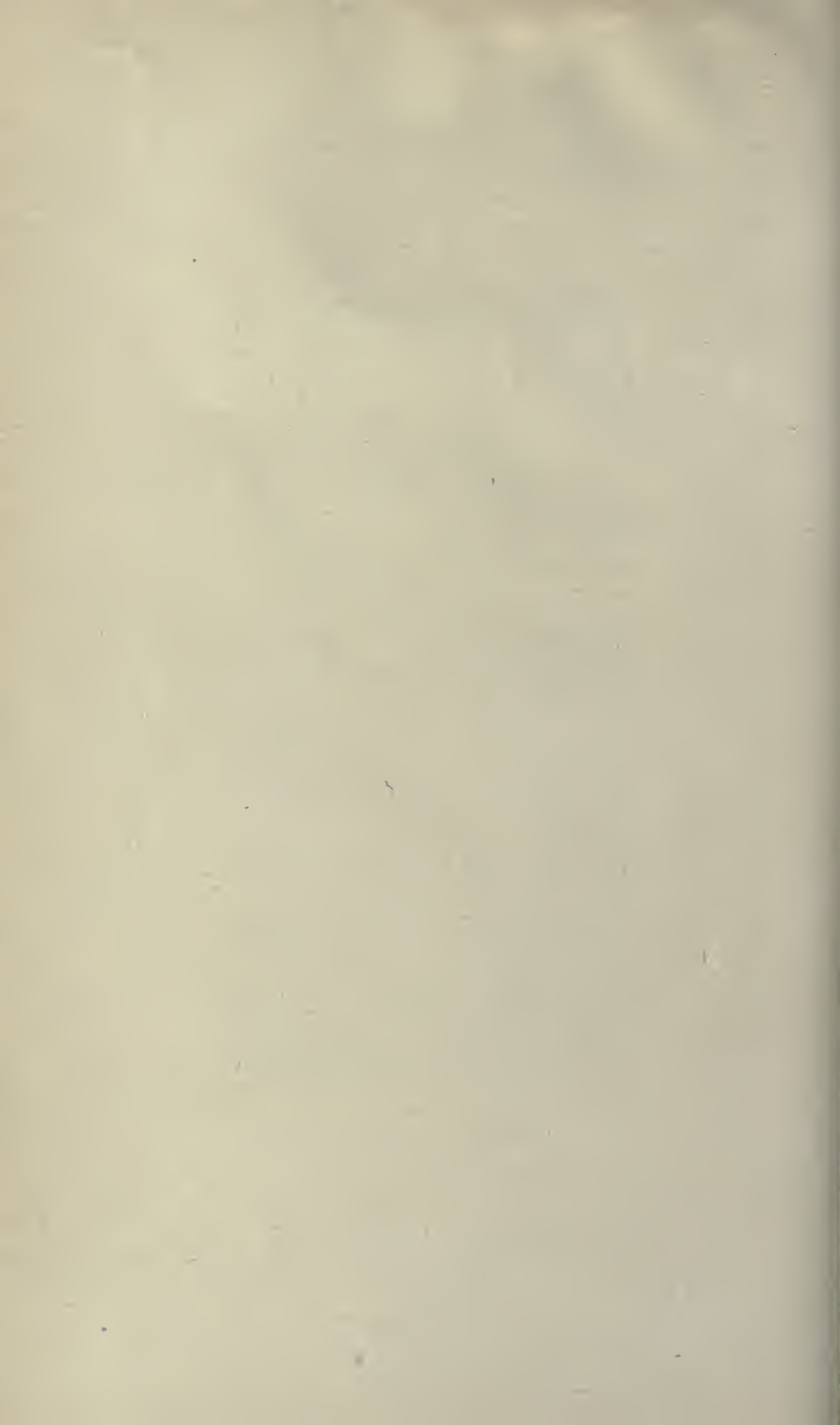
As to whether it was right or wrong to rob Tut's Tomb against his will and desire, the public opinion of the Egyptians seems divided. The superstitious contend that punishment will surely be meted out to the violators of the sanctity of the tomb. They point to the fact that Lord Carnarvon found one of the royal robes a large gold scarab warning him. He disregarded the warning and a few days later his tragic death occurred by the poisonous bite of a mosquito. The Mayor of Luxor, who assisted Lord Carnarvon in many ways, also suddenly died. The Governor of the Province, who also assisted in the work, lost his post and is now an invalid. A beautiful canary belonging to the expedition was bitten by a cobra and died instantly. The cobra was the sacred serpent of the Egyptians of which images in gold and wood were commonly placed in the ancient tomb to protect it against intruders. The Egyptians are no different from other people in disliking to have the tombs of their forefathers desecrated but permit it in the interest of science and knowledge.

Biban-el-Moluk, or the Gates of the Kings, as the natives call the valley, is the burial place of Egypt's most famous kings. Their tombs are tunneled beneath the rocky bluffs; their corridors and chambers inscribed with reliefs and vividly colored. Thuthmosis I., about 3500 years ago, was the first king to use the valley as a cemetery, and the practice continued for about 400 years.

In order to keep the tomb a secret as against tomb-thieves, all chips of stone, as well as the entrance to the tomb, were covered with sand and rock making it look as natural as possible. Some of these tombs escaped molestation for thousands of years; some were opened by robbers of ancient Egypt; and some were excavated during



KARNAK
Hypostyle Hall and Obelisk of Queen
Hatshepsut
Plate 5



the Greek and Roman periods. In 1799, by order of Napoleon, the valley was surveyed and examined by the French. In 1817 Belzoni discovered the most beautiful and finely decorated tomb of Seti I. Other discoveries followed. Further exploration was generally considered useless. However, the valley had not yielded all its secrets for the greatest find was awaiting the coming of Lord Carnarvon and his co-worker, Howard Carter.

Tomb of Tutankhamen

To reach Tut's tomb a flight of stone stairs takes one to an inclined passage way about 27 feet in length which leads to the ante chamber, about 25 feet long and 12 feet wide. To the left is a small low opening to the annex—a square room which, when opened, was literally filled with furniture and priceless objects.

The Sepulchral Hall is 25 feet long and 12 feet wide in which was found King Tutankhamen's massive sarcophagus of pink sandstone. The walls of the Sepulchral Hall are decorated and painted. To the right is the Treasure House, 15 feet long by 12 feet wide, and when found contained a world of priceless treasures, which, with the most of other finds, have been removed to the Cairo Museum. The mummy of King Tut was found to be in a poor state of preservation and is not exhibited to visitors. It is enclosed in his coffin plated with beaten gold which is still in his tomb. A part of the room called the Treasure House is filled with boxes said to be packed with material recovered but not yet transported. Soldiers guard the entrance to this tomb which lies directly under that of Rameses VI. King Tutankhamen reigned from 1350 B. C. to the time of his death five years later at the age of twenty-three. The royal throne, furniture, robes of state and objects of art, etc., studded with precious stones, found in his tomb are valued at more than \$15,000,000.

All the tombs of the valley were built on the same lines with corridors and chambers cut deep into the solid rock. The tomb of Rameses III. has 13 corridors and rooms, and is one of the most elaborate. The tomb of Seti I. is 330 feet in length and contains 14 rooms and corridors.

The tomb of Amen-hotep II., contains the mummy of the king lying in its sarcophagus, and nearby are three mummies, each with a hole in the skull and a gash in the breast, presumably the servants of the king slain at the time of his death that they might serve him in the world to come. Only about a dozen tombs of the valley are accessible to tourists.

The period during which this group of tombs was built is known to be the most prosperous of Egyptian history and a time when tribute from Syria, Palestine, Lybya, Nubia and Sudan flowed into the country. A king usually commenced building his tomb early in his reign and continued until death. If his reign was long and he could obtain the necessary funds, more chambers were added. If his reign was short, his tomb would thus indicate it.

Thebes

The site of the ancient city of Thebes is on the west bank of the Nile across from Luxor. It is now a great mass of mounds showing the results of extensive excavation. At the base of a wall of cliffs that separate the Valley of the Nile from the Valley of the Tombs of the Kings has been excavated the Temple of Queen Hatshepsut in terraces with a total length of about 800 feet and considered one of the finest temple remains of all Egypt. This queen ruled Egypt wisely for sixteen years, is always represented in male attire, and among her masculine attributes, wore a beard. In inscriptions masculine pronouns are used in referring to her.

After visiting Cook's rest house where all tourists take their mid-day meal, a few moments' walk took us to the Temple of Ramesseum, built by Rameses II. in honor of Amon-Ra. The temple is in a half ruined condition. On the walls of the pylons battle scenes are pictured. Before the temple, now fallen, is a colossal statue of Ramese the Great, about 57½ feet in height and weighing about 1000 tons. Some idea of its size can be had from the fact that the circumference of each arm at the elbow is 17½ feet.

The Colossi of Memnon

About a half mile from Cook's rest-house, on the way to Luxor, are two colossal statues erected over 3000 years ago by King Amenophis III, the original builder of the Luxor Temple. These great twin Colossi were placed in front of his mortuary temple of which but a low mound now remains. Each of these monuments represents the king seated on his throne with mother and wife on either side and a small statue of some one unknown between his legs. Each Colossus is about 70 feet high, weighs a thousand tons and is made from a single block of stone. Since their erection, six feet of soil has been deposited around their bases by the Nile. For several centuries one of these monuments had been famous for producing a murmuring sound each day at early morn, which caused it to be revered as the abiding place of some spirit. About two thousand years ago the so-called "Whispering Colossus" suffered damage to its upper extremities from an earthquake and was but recently repaired, resulting in the murmur ceasing. It was found that this strange noise was caused by the rapidly escaping moisture gathered at night when reached by the hot morning sun.

At Luxor, every person carries a fly switch, which one finds use for about every moment of the day. In no place have we seen such great swarms of hungry flies.

The Winter Palace is a beautiful hotel, its appointments complete, yet it is not provided with screens, fly paper, or traps. The fly progagation in Egypt seems to be encouraged, as the Mohammedan never kills one.

Religion and Gods

The ancient Egyptians worshipped about 438 gods and goddesses but believed in one as master of all to whom their temples were usually dedicated. The great sun god was generally referred to as Ra, at Thebes as Ammon or Ammon-Ra, and at Memphis as Ptah. The belief in the resurrection and eternal life was universal.

During the reign of the Shepherd Kings, the twelfth dynasty, nearly all the temples of fine architecture that had

been built by the great kings of old and dedicated to their gods, were destroyed. During the eighteenth dynasty the princes of Upper Egypt combined and drove the invaders beyond the frontier and Egypt was gradually raised to the culminating point of her greatness. The sanctuaries which were destroyed were rebuilt with the spoils of conquests. During the reign of Amentrotop III (Akhematen), there occurred a great religious upheaval in Egypt because this king wished to worship the god of the sun only, but after his decease the old beliefs were resumed.

Christianity was early preached in Egypt. In 389 A. D. Theodosius proclaimed Christianity the religion of the state and ordered all ancient temples closed. After the Arabs conquered Egypt in 640, the natives who remained Christians were known as Copts. They for a long time preserved their language, customs and the Christian religion. Large numbers of the early Christians of Egypt were persecuted and massacred, and their churches burned or pulled down. Every Christian and every animal possessed by him was branded with a number. Christians were ordered to ride only mules and asses; the men compelled to use wooden stirrups for their saddles, wear a girdle and patches of different colors on their garments. Women had to wear yellow colored veils and no girdles; the graves of Christians to be made level with the earth. They were prohibited from lighting fires along the highways or on camping sites. Figures of devils over the doors of their homes were required. Each man had to wear a wooden cross suspended from his neck weighing not less than ten pounds. As centuries passed under the Arab rule, conditions grew worse and annoyances unbearable, causing thousands of Christians to embrace the religion of Islam.

Mummifying

For fully 5000 years the art of embalming was practiced in Egypt. It has been estimated by Dr. Birch that "between 2000 years before Christ and 700 years after, there were 420,000,000 corpses embalmed in Egypt." We ask the object of this tremendous expenditure of time and money. The answer in short is that in the earlier periods



COLOSSI OF MAMMON
Plate 6

the Egyptians seem to have believed that the body would be resurrected and again contain the spirit. Later the belief seems to have been changed somewhat and that the careful preservation of the body only was necessary for the well being of the soul which inhabited it.

The cost of preserving the body varied according to the method used. Three different processes were employed, the most expensive of which consisted of extracting the brain through the nose and removing the intestines through an incision made in the side. The intestines were washed in palm wine, covered with powdered aromatic gums and placed in jars. The cavity in the body was filled with myrrh and other fragrant and astringent substances. The body was next soaked in natron, which is a mixture of carbonate, sulphate and muriate of soda, for 70 days, then wrapped up in strips of linen smeared with gum. The cost of mummifying a body in this way was a talent of silver, or about \$1166.00.

In the second method, the brain was not removed, the body simply laid in salt or natron which dissolved everything but skin and bones.

The third method, used by the poor only, consisted in merely injecting some strong astringent and salting the body.

The Egyptian Museum

In 1851 the Antiquities Department of the Egyptian Government found a home for its collections at Bulac; then removed to the Palace of Giza in 1891. In 1900 the present building in Cairo was built at an expense of more than \$1,000,000. It is a fine building in the Graeco-Roman style and contains only such objects as were made in or imported into Egypt from the earliest times down to about the tenth century of the Christian era. No one can have an intelligent understanding of Egyptian antiquities without a visit to this museum and no words can convey an adequate idea of the great value of its collections as sources of information relative to the advanced civilization of Ancient Egypt.

This museum stands as a monument to the untiring

energy of two great men—Auguste Ferdinand Mariette and Gaston Camille Charles Maspero. Mariette's death came before the desires of his life had been realized. Having no place for storage of priceless relics which he discovered, they often had to be reburied under the sand where found. Energetic archaeologists from England, France and other countries made good use of opportunities and secured many valuable specimens for museums at home. Little or no restriction was placed on collecting by reason of which many private collections were enriched.

After Mariette's death the work was resumed by M. Maspero and his successor, M. Eugene Grebaut, resulting in the magnificent new building and a curb on the reckless destruction and further loss to Egypt of her wonderful antiquities. Mariette, who accumulated a wonderful amount of material, ended the old method of Egyptian exploration. His methods are said to have been rather loose and wasteful which, under modern investigation, no longer exists. No site is now considered explored until every scrap of pottery has been collected, numbered and studied, and the sand and earth put through a sieve to the end that a coherent picture of the life and history of the various periods may result.

The following description of some of the most important exhibits of the Cairo Egyptian Museum was taken largely from the Third Edition of the Catalogue of that institution, as well as from the labels upon the exhibits.

At one end of the park in front of the museum is the tomb and statue of Auguste Mariette Pasha, the founder of the Antiquities Department of Egypt.

In front of the Museum are a number of granite and basalt sarcophagi of which almost all belong to the Persian and Ptolemaic periods.

Prehistoric and First Dynasties

The civilization of Egypt is ancient. When Greece was inhabited by rude shepherds, Egypt was a land of extensive roads, palaces, immense temples and monumental structures, which, in many instances, have survived the ravages of time for thousands of years. Evidences of the arts and

crafts of the people of those remote ages have found a home in this wonderful museum. Persistent excavation and research for the past fifty years has made it possible to reconstruct at least a substantial framework of Egyptian history extending back possibly for seven thousand years.

In prehistoric times a fair degree of civilization, which doubtless took ages to develop, must have existed. A savage people cannot acquire a high degree of culture in a short time such as existed in Egypt just previous to the First dynasty.

In Room B of the museum are to be seen the most ancient monuments, dating from prehistoric times and the first dynasties: Stone club heads, shell and flint bracelets, flint daggers with gold handles, crude stone hammers, combs, arrow-heads of flint and ivory; ivory lions and dogs, being game pieces; vases decorated with primitive drawings of men, animals, boats, etc.; vases of black or red earthenware with white decoration; vases of various stones such as granite, breccia and limestone, with small, crude drawings or inscriptions, several vases made of ostrich eggs and objects from the tomb of King Menes (Ist dynasty) near Naqada.

A very interesting exhibit is a basalt slab, a fragment of what is known as the Palermo Stone, on which was recorded, year by year, the highest levels of the Nile from the first to the sixth dynasty. Here is also a basalt statue of King Kha-sekhem, and a granite statue of a priest, both of the second dynasty.

In the Great Gallery are shown some samples of its collection of ancient stone tools, besides some fine specimens of axes of the most primitive type, knives and daggers of flint, remarkable for their perfect form, the delicacy of the work and the fineness and regularity of the chipping along the edge.

Mummies

Galleries M and K are almost completely occupied by the mummies of kings and great personages. As we passed among the remains of the greatest men of their day, a feeling of reverence came over us. We were lost in meditation

as we looked into the very faces of men whose word spelled life or death to thousands in the dim and distant past.

The necropolis of ancient Thebes (Luxor and Karnak) is located in the valley, called in Arabic, "Biban-el-Muluk", being a part of what is now known as the Valley of the Tombs of the Kings. In this valley the mummy of each sovereign of the XVIIIth to the XXIth dynasty was originally deposited in his rock-bound tomb, together with his equipment for the Under World, which in some instances was doubtless of even greater value than that found in the tomb of Tutankhamen.

These tombs consist of inclined tunnels reaching, in most instances, hundreds of feet into the rocky side of the mountain, with a number of chambers or halls—the entrance to these tombs being finally sealed with masonry and concealed as far as possible by piling against the same, great heaps of rock fragments. Yet, as time went on these Pharaohs were not permitted to repose in peace and solitude, for bands of robbers plundered their tombs in quest of jewels, with which they might be adorned, and did not hesitate to unwrap and destroy the mummies themselves.

Under the XXIst dynasty, the Priests of Amon, in order to afford better protection, caused the bodies of the Kings and those of other distinguished personages to be taken from their tombs and deposited together where they would be easier to watch. It was found that the mummies of the great Theban Kings had been abused, their jewels taken and even the gold had been scraped off the sarcophagi. The bodies, left bare by the thieves, were rewrapped, new coffins were provided where the original ones had been destroyed and all moved from tomb to tomb in order to mislead the treasure seekers—so common in those days.

It was not until about the beginning of the reign of Sheshouk Ist of the XXIIInd dynasty that a permanent resting place for these wandering mummies was provided. The ones, which had undergone repairs and rewrapping and occupying a coffin capable of being carried, were taken over the ridge of cliffs, which separates the Biban-el-Muluk, the eastern branch of the valley, from that of Deir-el-Bahari. Here the coffins of the Kings as well as those of

the priests of Amon of the XXIst dynasty were lowered into an old tomb of the XIth dynasty. Situated half-way up the cliff and easy to guard, an ante-chamber of the tomb of Amenhotep IInd was made a depositary for the mummies in bad condition and without suitable coffins. The entrances to these tombs were walled up and concealed as much as possible by heaps of broken rock.

It was during the summer of 1871, and after 2000 years of peaceful repose, that these Pharaohs and Royal personages were again disturbed. An Arab discovered the old tomb, heaped with coffins, mummies, funeral furniture, boxes, canopic jars, bronze vases and many other treasures. Ancient objects were being sold to tourists on the Nile which aroused suspicion that a veritable "Cove of Treasures" had been unearthed. The secret of the find and its location were not divulged until 1881, after which time the contents of this tomb were transferred to Cairo.

The tomb of Amenhotep II, the other depositary, was discovered in 1898 and the eminent personages were taken to the Cairo Museum. Once more the mummies were unwrapped. Egyptologists and doctors studied, measured and photographed them and in some instances were able to determine of what illness they had died, some thirty to thirty-five centuries ago.

From these two mortuary hiding places were recovered thirty-five kings, queens, princes or chief priests and ten persons of secondary rank.

"The most interesting mummies are: (Numerals are exhibit numbers).

"3894—Aahmes 1st (XVIIIth dynasty), who drove out the Hyksos, or Shepherd Kings, from Egypt.

"3869—Rameses III (XXth dynasty); the fine red linen which was glued to his face has been only partially removed.

"3879—Menephtah, son and successor of Rameses II, who was long erroneously believed to be the Pharaoh of the Exodus.

"3873—Lid of a coffin made for Queen Taia (XVIIIth dynasty), afterwards modified to serve for her son, Akhenaten, or for one of the kings, his successors, who

had abandoned the worship of Amon. Unique specimen, sheathed in gold and inlaid with carnelian and glass. The gold mask and the king's name have been torn off, doubtless as an act of vengeance by the priests of Amon.

"3874—Amenhotep Ist in his coffin, of which only the lid has been removed. Thus we can see the mummy in its linen wrappings, the mask of stuccoed canvas on the head, and garlands of flowers wound round the body.

"3876—Ramses II (XIXth dynasty) the Sesostris of the Greeks, who reigned 67 years, covered Egypt with monuments, and was the last great Egyptian warrior.

"3875—Seti Ist, father of Rameses II. The material employed to mummify the body has blackened the skin, which would otherwise have been white. The head is of supreme dignity.

"3872 and 3892—Enormous coffins, in wood covered with a layer of plaster and originally gilded, of two queens of the beginning of the XVIIIth dynasty: Aahmesnefertari and Aah-hotep II.

"In Gallery K are mainly to be found coffins of priests of the XXIst dynasty, covered with paintings protected by a varnish which has become yellow with age.

"3858—Coffin of Queen Nozemit, inlaid with fayence.

"3853—Coffin containing the mummies of Queen Matkara and her baby daughter."

In the north balcony is a mummy of Iuaa, father of Queen Taia, wife of Amenhotep III (XVIIIth dynasty), which is particularly interesting as it shows on the left side the incision through which the body was disembowelled before embalming, covered over with a small plate of gold to prevent evil genii from entering into the body and destroying it. The mummy was placed in the gilded coffin, this being enclosed in the coffin with silver decoration, which in turn was placed in the coffin covered with black resin, the whole being then enclosed in a great chest, which was mounted on a sledge and served as a hearse.

In Room O are a number of mummies of the Greek and Roman periods.

Mummies of Sacred Animals

In the Great Gallery are mummies of the holy rams of Khnum, whose cemetery was situated in the Island of Elephantine, opposite Aswan.

Another interesting room called the Gallery of Natural History is devoted to the fauna of Ancient Egypt. Here are exhibited the mummies of animals and some entire skeletons which have been reconstructed with the bones taken from such mummies. Most of them belong to the Ptolemic period, but some examples go back to the 20th dynasty and even further. The examination of these skeletons has proved that the animals living 3000 years ago and more were absolutely similar to those existing in our own time, and that there has been no anatomical modification. Here we saw mummies of crocodiles, monkeys, dogs, cats, oxen, antelopes, gazelles, birds of prey, ibis, serpents and fish.

The art of mummifying reached the heights of perfection at Thebes. Mummies of the first six dynasties are fragile and break into fragments when exposed to the air for any length of time. Those of the 11th dynasty are yellowish in color and extremely brittle, breaking with a metallic sound. Those of the next dynasty are black. This is explained by the different methods of embalming which varied at times and places. From the 18th to 21st dynasties the Thebes mummies were yellowish in color, the nails of their hands and feet dyed yellow, while the Memphis mummies of the same period are black.

After the 25th dynasty the mummies of both places are extremely dark, heavy, shapeless and not easily broken.

Sarcophagi

In the west wing is the sarcophagus in pink granite of Khufu-ankh of the fourth dynasty. The coffin, being the house of the dead man, is decorated to represent a house. On the long sides are depicted the doors and windows, the exterior grooves being a copy of the projections and recesses ornamenting the facade of houses built of unbaked bricks.

The limestone sarcophagus of Dega of the 11th dynasty was the next that interested us because of the fact that within this coffin are painted the objects used by the dead man: shields, lances, bows, arrows, sandals, necklaces, bracelets, pots of perfume, etc.

Here also is a quartzite sarcophagus of Queen Hatshepsut found in a tomb which was originally excavated for her before she had decided to be buried in the Valley of the Kings. The second coffin of this queen, made of flinty red sandstone, is in Central Hall beside that of her father Thothmes I. Nearby is a recently found sarcophagus of the 11th dynasty, the lid partly covered by a leopard's skin in relief. In Room G is the burial chamber of Harhotep with limestone sarcophagus, brought from Thebes. All the space on the walls or on the sarcophagus which is not occupied by the representation of objects useful to the dead, is covered with historic inscriptions consisting of prayers and magical formulae. This monument dates back to the 11th dynasty.

Great Gallery

"When the priests of Amon were hiding the mummies of the great kings in secret spots, they tried also to preserve the bodies of the members of their own corporation from thieves, and buried them in well-concealed places. In 1891 the Service of Antiquities discovered, in front of the temple of Deir el Bahari, an ancient tomb in which, during the XXist dynasty, 153 coffins of priests and priestesses of that period had been interred. The biers are generally double or treble. A series of these coffins adorns the whole circumference of the Gallery; what remained was given by the Egyptian Government to foreign Museums. They are much the same in aspect, being generally ornamented with polychrome designs and inscriptions, and covered with varnish which has now turned yellow. But the scenes represented show great variety, and are very interesting to students of mythology."

Statues

In the middle gallery are two glass cases containing several wooden and limestone statues found in graves of the

Old Empire. They represent personages of the 4th and 5th dynasties, and also their servants who are attending their daily labors, grinding corn, making pottery, brewing beer, roasting geese and thus carrying on forever their work on earth for the dead.

In Room B are four glass cases containing statues of private persons which were placed in the tombs. The belief was that if the body, in spite of all the care taken for its preservation, was destroyed, the spirit could find reincarnation in a statue made to represent the dead man and bearing his name. The statue was therefore sculptured as like the living man as possible. Often family groups were represented.

In the same room is a seated statue in alabaster representing Mycerinus, the king who built the Third Pyramid at Giza.

In Room D are two beautiful limestone statues, larger than life, representing the priest Ranefer of the 5th dynasty. In the same room is a statue of King Pepi Ist of the 6th dynasty, who died when about 100 years old. The king's head, feet and hands are cast in bronze, while the body and limbs are of copper which is hammered over and nailed to a wooden core. It is the oldest and the largest Egyptian statue in metal as yet known.

Portico F is one of the rooms reserved for monuments of the Middle Empire and contains, among others, a seated statue in limestone of Amenemhat III of the 12th dynasty; a wooden statue of King Hor of the 13th dynasty, and a statue in painted sandstone of a king, Mentuhotep of the 11th dynasty, represented seated, clothed in one of the costumes which he had to wear at coronation feasts.

In Gallery J are four sphinxes, or lions with human heads, from Tanis. These were at first attributed to the Shepherd Kings on account of their unusual type and the legend of Apapi engraved on their shoulders and afterwards chiselled out. It is now proved that they go back to at least the 12th dynasty. All royal names engraved deeply around the pedestal and on the shoulders and chest, which are those of Rameses II, Menephtah and Psusennes, have been added later.

To the right on entering Room 1 is a beautiful statue of Thothmes III, the greatest Egyptian conqueror. A beautiful statue of fine limestone of Thothmes III, kneeling to present two vases containing wine, and a small statue of Amenhotep III standing, carved out of a piece of petrified wood, are here. Also, a granite statue of King Tutankhamen, found at Karnak in 1904. The air of suffering on the face suggests poor health.

Space will not permit the description of the hundreds of statues in the Cairo Museum, as much as many of them deserve it, such as: Rameses II; of Seti I in alabaster; of Thueris, a goddess in the shape of a hippopotamus; of Osiris, god of the underworld; of Isis, wife of Osiris, wearing a head-dress of cow's horns and the solar disk; an alabaster statue of Queen Amenartis, and of many statues recovered from a great pit at Karnak.

Religious monuments, statues of divinities and sacred emblems fill a large room and run in size from casts of the Goddess Bast to that of the bull Apis, incarnation of Ptah.

Bas-reliefs from the graves of the necropolis of Memphis and many other places, the fine collection of stelas, paintings from the walls of tombs, mastabas and clay tablets depict the lives of the people.

Wooden Boats

In the South Portico are two large wooden boats, 10 metres long. These boats, after having been used at the funeral of Sennusert II (12th dynasty), were buried in the sand near his pyramid at Dahshur in order to enable the king to make use of them in the other world.

Funerary Furniture

Funerary furniture of the Old and Middle Empires on exhibition consists of: Boats; bronze cups containing cakes of incense; pillows for the head or head-rests, on which the Egyptians placed the neck so as not to disturb the hair in sleep; provisions for the dead man sculptured in limestone: ducks and knives to carve them; statues of people doing all kinds of labor; houses in terra-cotta for the dead man

and everything that the deceased might possibly want in the next world. Bread 3000 years old has been taken from the tombs.

Jewels

Room L contains the most wonderful collection of ancient Egyptian jewels that has ever been assembled. Here are to be seen rings, necklaces, bracelets, crowns, ear-rings, amulets in every conceivable form, once the property of kings and queens. The collection of scarabs is the best in the world.

Egyptian Manuscripts

The Egyptian manuscripts on exhibition on papyrus are of great historical value. Papyrus is paper manufactured from the pith of a certain reed, the "cyperus papyrus". Strips of pith are spread out, fitting closely to each other, and strengthened by another layer of strips laid at right angles to them. Most of these manuscripts are funerary documents, producing part of the collection of religious texts known as the Books of the Dead, or portions of the Book of the Under World, giving information about those regions which the sun traverses during the night, as well as the spirits who inhabit them.

Instruments of Writing

In Portico B is an interesting collection of all the instruments used for writing and painting: Scribes' palettes containing slender reeds for writing, brushes made of the thick stems of the reed, mortars and pestles, writing tablets and specimens of the inks and paints in early use.

Objects from the Tomb of Tutankhamen

The following is a brief description of the objects from King Tut's tomb on exhibition in the Cairo Museum as of March 7th, 1927. Others are being added from time to time as the tomb has not yet given up all of its treasures. Many of the objects recovered are of unparalleled splendor and sumptuousness. No collection of such magnitude and value has ever been recovered from any other sepulcher.

Just what the tombs of the greater kings of Egypt contained before being looted by thieves we shall never know, yet it seems fair to presume that some of them, at least, may have yielded wealth far beyond our conception.

Coffins

Upon entering the smaller of the two rooms containing the King Tutankhamen collection, the one object that seemed to eclipse its surroundings was a solid beaten gold, anthropoid or man-shaped coffin, which, when found, contained the mummy of the king. His remains were transferred to one of the other coffins and left in the Valley of the Tombs of the Kings where it will doubtless remain. This coffin, said to be the largest piece of beaten gold in the world, is beautifully chased, both inside and out. A full-sized figure of the king, lying in state, forming the lid, is represented as Osiris, god of the future life, one of the greatest of Egyptian deities. His forehead is decorated with the vulture and uraeus, representing deities of Upper and Lower Egypt; his arms lie across his breast and in his hands are held the symbols of his semi-divine office, the sceptre or staff of government, and flail symbolizing authority. The image is adorned by a necklace consisting of two rows of disks of red and yellow gold ornamented with blue fayence, a beautifully glazed earthen-ware. Around the breast is an exquisitely wrought pectoral or breast ornament with outstretched wings made of small plaques of gold adorned with stone and glass inlays. Encircling the king's legs are the two goddesses, Iris and Nephthys, to protect the royal occupant during his journey to the under world.

The second of the three nested anthropoid coffins of King Tutankhamen, and the one that contained the gold coffin case above described, is made of wood, plated with gold and ornamented with different shades of red and blue glass. On its cover is a massive figure of the king represented as Osiris, with crook and scourge in hand, royal emblems across his forehead, and two figures with extended wings, representing deities of Upper and Lower Egypt, cover the breast.

The royal diadem of gold, found on the actual head of Tutankhamen, is a wide band with gold rosettes, inlaid with carnelian. The front contains the royal emblems, the vulture and uraeus. The clasp that held the band together is in the shape of a rosette of lotus flowerets. From this hang two long pendants decorated like the band and two shorter ones, each ending in an uraeus.

The solid gold mask of superb workmanship which covered the head of Tutankhamen is said to be an admirable portrait of the king. The head is covered by the nemes or royal hood, embellished with strips of blue glass and surmounted by the emblems of royalty. The eyebrows and eyelids are inlaid in lapis lazuli. Over the breast is the form of a large necklace with many insets of stones and glass. A beard belonging to the mask of faded blue glass and a gold inlaid necklace intended to adorn the mask are in the same case.

The jewels found in the tomb of this Pharaoh are beautiful beyond description and the workmanship exquisite.

Across the mummy's breast were found no less than sixteen layers of gold pectorals and amulets, among which were three magnificent bird collars, with variations in design, specially adapted for the king. These royal collars are flexible, usually in the form of the vulture or the uraeus, with body of a bird and with curving wings, sometimes grouped together and symbolizing the king's authority over the two united divisions of Egypt. One of these collars is composed of no less than two hundred and fifty plaques of gold. The others contain a lesser number. All are highly embellished with cloisons filled with precious stones, blue fayence or polychrome glass. Two other royal collars, cut from sheet gold, deserve special mention. One consists of a highly ornamented winged uraeus and the other of a falcon, both having their wings extended in the shape of a crescent. Each of the five bird collars is provided with a pendant which hangs over the back and served as a counter balance to the weight of these gorgeous ornaments. A dozen other bird collars, principally of gold and highly ornamented, are in the collection.

A series of twenty-three richly and variously decorated

massive finger rings were recovered. All are of gold but one; some double or triple; several set with lapis lazuli, chalcedony, turquoise or glass; others surmounted by scarabs. In one case the ring is of wood covered with gold leaf.

On the arms of the king were eleven magnificent bracelets and three more at his side. Of these bracelets, seven were of gold. Two were ornamented with a mystic eye in blue glass; two with a piece of crocodile skin; a third adorned with the figure of a vulture; two others inlaid with stones and set with scarabs. The other bracelets were composed of from three to a dozen strands of beads of carnelian, green felspar, glass, lapis lazuli, turquoise or gold.

Another object of interest is the king's shrine of wood covered with sheet gold on a sled overlaid with silver. It is fitted with a two-leaved door fastened with ebony bolts. The doors, side and back of the shrine, are decorated with small scenes of the intimate life of the king and queen.

The king's throne is also here. It is of carved wood, coated with gold, highly decorated with inlays of fayence, glass, stones and silver. The seat rests on four feline legs, the front ones surmounted by carved lions' heads. The arms are in the form of crowned serpents. On the back panel are indoor scenes relating to the king and queen and symbolizing the union of Upper and Lower Egypt. Below the shrine is a footstool of wood covered with gilded stucco and blue fayence. On it are represented prisoners in bonds lying prostrate at the feet of the king.

Another attractive exhibit is a large funeral bed in wood, artistically carved and covered with gold leaf. It is supported by two fantastic animals with long slender bodies, lions' paws and huge mouth with ivory teeth and tongue, painted red. These ugly looking animals were expected to protect the king and devour his enemies in the other world.

The king evidently was provided with transportation for his long journey as the two royal chariots taken from his tomb would indicate. These vehicles, which were taken apart before being deposited, are of wood covered with gold. With them are to be seen several accessories of unknown use, yokes, four saddles from the harnesses of the

same chariots, one pair being decorated with the head of the god Bes in gold, two figures of captives in gilded wood, originally attached to some part of the chariots, and two gilded wooden falcons, each crowned with the solar disk, which were probably attached to the outer ends of the poles of the royal chariots.

Two life-sized statues of Tutankhamen were found posted like two sentries in the outer chamber of the tomb. These statues are of wood covered with black varnish and partly gilded. The margins of the eyes and the eyebrows are of gold. They are each provided with sandals of gilded bronze, and a large necklace and bracelets. One figure wears a headdress and the other a wig.

At least forty vases taken from the tomb, of various designs and materials, are to be seen here. A number of them are large alabaster perfume vases mounted on stands elaborately decorated with gold and ivory.

Among the lamps on exhibition is one of translucent alabaster in the form of a chalice resting on a four-legged stand. It is unique in showing on the outside when illuminated scenes of the intimate life of the palace.

Space will not permit a detailed description of the great number of objects taken from this tomb, but a brief mention of the following will give some idea of the magnitude and diversity of the deposits on exhibition in this museum:

A dozen chests and boxes, most of them elaborately carved and finished in gold and ivory; two ceremonial fans, principally of gold; chair and footstools with decorations in gold and ivory, many of them with inlays of precious stones; a series of more than forty walking sticks of which a great number are of gold and some highly carved and ornamented; cups of solid gold and other materials; a great number of scarabs of different materials, one of which is large and of gold; amulets of various types; ten toe-stalls and ten finger-stalls of solid gold; torch-holders, headrests, bows, arrows and boomerangs; daggers with gold handles, one with an iron blade, which is surprising; seven stone knives; model implements of various kinds; pectorals or breast ornaments; serpents in gold; many emblematic plaques with gold inlays; the sacred goose of Amun made of

wood covered with black varnish; a wooden mannequin coated with painted stucco; and dozens of other interesting objects of exquisite workmanship, principally of gold.

After reviewing the wonderful collection of funeral paraphernalia of King Tutankhamen, we marveled at a religious faith with so powerful a hold on a people as to survive throughout the dynastic period of Egypt and permit the loss to the living of so vast an amount of wealth as was buried with the dead. The reason for this great sacrifice is evident. They believed in the immortality of the soul and the existence of the body in the world to come. This faith robbed death of its sting and the grave of its terrors. Thus the cult of Osiris, one of the leading deities and "Ruler of the Under World" appealed to the ancient Egyptians. The portrait of this god of future life graced the walls of temples and of tombs, and to him tens of thousands of votive offerings were made. Upon this guardian of mankind after death rested the hope of immortality of four hundred million who have died.

GENERAL GEORGE ROGERS CLARK ON AMERICAN ANTIQUITIES

EDITED BY LOUISE PHELPS KELLOGG

Illinois and Indiana propose to hold in 1928-29 a sesquicentennial celebration in honor of George Rogers Clark, whose conquests a century and a half ago, paved the way for the United States to obtain from Great Britain the Northwest Territory, comprising the present states of Ohio, Indiana, Illinois, Michigan, and Wisconsin. Clark's career and opinions thus became of interest to all historians of this region. Clark lived all his mature life in the West, and his knowledge of western antiquities was unrivaled in his day for he had inspected personally many important remains, and knew intimately many Indian chiefs. Jefferson and others frequently discussed the origin of the remains found in the western country. In 1788-90 there appeared in Carey's *American Museum*. (A periodical which might be termed the "Atlantic Monthly" of its day), a series of articles in the form of letters by Noah Webster to Presi-

dent Ezra Stiles, of Yale College. These articles were written to suggest that the great earthworks and mounds observed in the western country were erected by the Spaniards under Ferdinand De Soto, and as such were the work of sixteenth century white men.

George Rogers Clark, then living in retirement at Louisville, Kentucky, was aroused by these articles to defend the Indian origin of western antiquities. The article which he wrote on the subject is of considerable interest, not only for its distinguished author, but because his opinion, formed a century and a half ago, coincides with the conclusions of modern archeologists.

Clark's article, which was addressed to the editor of Carey's *Museum* and is in the Draper Manuscripts in the Wisconsin Historical Library, reads as follows:¹

"Sir:

I have somewhere in your *Museum* read a long account by Mr. Webster of the march of de Soto through these countries; he is brought [by the author] to Lexington taken to the mouth of Muskingun, across to the Mississippi &c, &c., fortifying the country he passed through and all those immense works are ascribed to him. I think the world ought to be undeceived in this point. So great a stranger to the western country as Mr. Webster appears to be ought to have informed himself better before he ventured to have palmed his conjectures on the world. I don't suppose there is a person living that knows the Geography and Natural History, of the back country² better if so well as I do myself; it hath been my study for many years. I have made the calculation and venture to inform you that if there was paved roads from each of those fortifications to the other throughout the western country, that De Soto could not have visited the whole of those works with his army in four years, allowing him the common season for marching. Those works are numerous in every part of the western

¹ Draper Mss. 53J81. Clark's spelling and punctuation has been modernized. Draper copied this article and sent it to H. R. Schoolcraft, the antiquarian, who published it in his *Indian Tribes of America* (Philadelphia, 1854 1v, 133-136.

² The "back country" was the region west of the Appalachian Mountains.

country but more so in the Pittsburg country than elsewhere. There you will find them on tops of high Mountains. They are larger as you descend towards the Mississippi; there is not a place on the Ohio that we have attempted to fortify from [Fort] Pitt down but we find ancient works. Soto may have been on the Ohio³ but no vestiges remain to prove it. As for his being the author of those Fortifications it is quite out of the question, they are more numerous than he had men, and many of them would have required fifty thousand men to have occupied.

Some of them have been fortified towns, others encampments entrenched, but the greatest part have been common Garrisoned Forts many of them with Towers of earth of considerable height to defend the walls with arrows and other missive weapons. That they had commerce is evident because the mouths of every river hath been fortified; where the Land was subject to floods it [the fort] hath been moved out of the way of water. That they were a numerous people is also evident not only from their numerous works but also their habitations raised in low lands.

I had frequently observed scattered in what we call the low country on the Ohio little mounds which I took to be graves, such as Mr. Jefferson remarks, which are frequent all over this country, but could not [think] what would induce the people to bring their dead several miles from the High into the [low] lands for burial. In the spring of 1780 I lay a considerable time near the mouth of the Ohio.⁴ I was extremely anxious to find some high ground near the point.⁵ I had every acre of the country for several miles explored but found them subject to inundation and was about to move when a man came running into camp almost out of breath, and with joy informed me that he had found a spot of high land not far from [there] that they had not noticed before. Pleased with the information I went to the place and to my surprise found the foundations of a

³ It is now believed by historians that Soto never passed farther than southern Tennessee.

⁴ Clark was ordered in 1780 by Jefferson to build a fort near the mouth of the Ohio.

⁵ The point at the meeting of the Ohio and the Mississippi.

town raised in that low country; the few stones that lay scattered we could easily discover that they came from a quarry up the Mississippi. This plat was in the shape of an L with the angle pointing up the Mississippi and might have contained about forty huts.⁶ I viewed this with great pleasure although of no other use to me at the time. It explained to me the cause of the little mounds that I had observed in the low country and informed me that the whole of this country had been so populous that good land was scarce and that they raised the habitations throughout these low countries and for the conveniency of commerce or some other cause they had raised the foundation of a town at the point sufficiently large to answer their purposes. I say at the point as I make no doubt that it was very near it when built although at a very considerable distance at present as the Rivers have left it. I neglected noticing at the time which river it was on as I make no doubt it was on the bank of one or the other, rather the Mississippi as the lands on that is higher than those of the [Ohio] in those parts.

That they had great armies in the field is evident, the fortified lines in different parts would have required immense armies to man them. One in the Choctaw country is several miles in length; the one Mr. Carver mentions⁷ and many others in different directions but at considerable distances from each other.

That important passes were attended to by them is evident because many of them are Fortified. Thousands of men have passed the Cumberland Gaps⁸ and perhaps but few of them have taken notice of the curiosity there. The gap is very narrow and what is generally viewed as a little hill that nearly fills the gap is an ancient fortress for the defense of the place, a fine spring breaking out within a few yards of it.

⁶ In all probability the remains that Clark found at the junction of the Ohio and the Mississippi were what was left of the French enterprise of Juchereau, who built at this place a tanning factory for buffalo skins in 1702-1704. See Louis P. Kellogg, *French Régime in Wisconsin and the Northwest*, 273-274.

⁷ Jonathan Carver, who travelled up the Mississippi in 1766 mentions a grand encampment near Lake Pepin, circular in form, with a breastwork four feet high. See *Wisconsin Historical Collections*, VI, 227.

⁸ In southeastern Kentucky, through which led Boone's Wilderness Road by which most of the emigration to Kentucky passed.

That they made use of wells is evident because they yet appear in many places as little basins by the earth washing in. The one in the ancient fortress of Louisville was the well filled up by Colonel Patton who made use of part of the old wall for that purpose.

Covered ways to water is common, causeways across marshes frequent. The High Road across Little Grave Creek did and I suppose does at present pass across an ancient causeway made of sand and gravel across a marsh.⁹

The Indian traditions give an account of these works, they say they were the works of their forefathers, that they [the Indians] were formerly as numerous as the Trees of the woods, that they affronted the Great Spirit and he made them kill one another.

The works on the Mississippi near the Caw [Kaskaskia] River is one of the largest we know of. The Kaskaskia's chief, Baptiste¹⁰ gave me a history of it. He said that it was the palace of his forefathers when they covered the whole [region] and had large towns, that all those works we saw was the Fortification round the town, which must have been very considerable [extensive], that the smaller works we saw far within the larger was the real palace, that the little mountain we there saw flung up with a beacon on the top was a tower that contained part of the guards belonging to the defence as from the top of that height they could defend the King's house with their arrows etc.

I had somewhere seen some ancient account of the Town of Kahokia formerly containing 10,000 men; there is not one of that nation at present known by that name. Being frequently at that place, recollecting this story, I one day set out with a party of gentlemen to see whether we could discover signs of such population; we easily and evidently traced the town for upwards of five miles in the beautiful

⁹ Little Grave Creek flows into the Ohio from the panhandle of West Virginia below Wheeling. Its companion, Big Grave Creek, takes its name from the large Indian mound, which also gave a name to Moundsville. Clark lived in this vicinity from 1772-1774.

¹⁰ The Kaskaskia Indians were a branch of the Illinois tribe, and were numerous and powerful during the French regime. By Clark's time the tribe was greatly diminished. The chief, Baptiste Ducoigne was a friend of Clark. For a sketch see *Wisconsin Historical Collections*, XVIII, 368, note.

plain below the present town of Kahokia.¹¹ There could be no deception here because the remains of ancient works are thick, the whole [region] was [covered with] mounds and nature never formed a more beautiful [scene] than this, several leagues in length and about four miles in breadth, from the River to the High land and but few trees and shrubs to be seen. This town appears to have occupied that part of the [plain] nearest to the River but not on it. There is a strip of lower land. Fronting nearly the center of this Town on the Height is a pinnacle called the Sugar loaf from its figure; it is frequently visited by strangers as a mere curiosity. My visit was perhaps from a different motive; I was not disappointed with it. I at once saw that it was a hill shaped by the action of a little brook breaking through the larger Hill and it had formed a very narrow ridge. This had been cut across and the point shaped in the form of a sugar loaf, perhaps to place an idol or a temple on, as it could not be more conspicuous. It is of very considerable height and you are obliged to wind round it to ascend on horseback.

I think the world is to blame to express such a great anxiety to know who it was that built those numerous and formidable works and what has become of those people. They will find them in the Kaskaskias, Peorias, Kahokias (now extinct), Piankeshaws, Kickapoo, Cherokees, and such old nations,¹² that say they grew out of the ground where they now live, and that they were formerly as numerous as the Trees in woods but offending the Great Spirit he made war among the nations and they destroyed each other. This is their tradition and I see no reason why it should not be received as good History, at least as good as great part of ours. At what time this great Revolution should have happened which certainly hath taken place in this quarter I never could get any satisfactory account (only that it had taken place) as it is beyond their calculation of time, but I am convinced that is anterior to five hundred years and I don't think it difficult to make a tol-

¹¹ Clark herein describes the great Cahokia mounds in central Illinois, opposite St. Louis.

¹² A great number of the tribes that call themselves Nations are undoubtedly nothing more than Bands that have broken off from the older Nations. *Note by Clark on original Mss.*

erably satisfactory conjecture of the time at least within a few years. It may appear strange how it should be possible to discover this but so it is."

NATIVE COPPER HARPOON POINTS

No fewer than half-a-dozen distinct forms of native copper harpoon points have been recovered from old Indian sites in Wisconsin. Some of these have never been described. Specimens of nearly all are found in the Henry P. Hamilton collection, in the State Historical Museum at Madison. Brief descriptions and illustrations of four classes or types of these copper harpoon points are given in the monograph on "The Native Copper Implements of Wisconsin" published in the January 1904 issue of "The Wisconsin Archeologist". (V. 3, No. 2, pp. 79-80).

Classes

1. In the first class are included "short, flattish implements, seldom exceeding two and a half inches in length. One edge of these implements is either straight or presents a continuous curve from extremity to extremity. The other edge is curved or straight from the point downward to about opposite the middle of the implement, where it is furnished with a barb. From thence it narrows to the other extremity thus forming a stem. Occasionally this is notched on either side near its base. A small number of these points have been recovered from Lake Michigan shore sites." The Lake Michigan shore sites referred to are those near Algoma, Two Creeks, Two Rivers, and at the Black River south of Sheboygan.

A specimen in the Hamilton collection is $2\frac{5}{8}$ inches long. The point of the barb is only about one third of the distance from the point to the other extremity of the implement. On the opposite edge of the implement within five-eighths of an inch of its tang end is a small notch. Doubtless this notch was intended for the attachment of one end of a light line the other end of which was tied to the wooden shaft or handle into which the point was loosely inserted. This specimen comes from the Two Rivers sites. (Fig. 1, No. 1)

A specimen formerly in the W. H. Ellsworth collection has two notches opposite each other within about three-fourths of an inch of the pointed base of the harpoon point.

2. "A second and less frequent form [long and narrow] is cylindrical in section and tapers to a sharp point at each extremity. Removed from one end by several inches, more or less, is a stout and very pronounced barb. All are of large size. A fine specimen formerly in the William H. Ellsworth collection measured ten and three-fourths inches in length and about one half inch in diameter at its middle (Fig. 56). Others are to be seen in the Elkey and Hamilton cabinets. Mr. Clarence B. Moore has described a large and fine example obtained by him in Florida."

Two examples of this type of harpoon or fish spear point are in the collections of the State Historical Museum. The largest of these is $9\frac{7}{8}$ inches long. The base of the sharp-pointed half-inch barb is $2\frac{1}{2}$ inches from the sharp tip of the implement. This point was found in Merton Township, Waukesha County, in 1877. It weighs 4 ounces.

The other specimen is $8\frac{5}{16}$ inches long and weighs 3 ounces. The barb is within seven eighths of an inch of the tip of the implement. It is very short being only one-eighth inch long. This point was found at Lake De Neveu, Fond du Lac County.

In the collection of Mr. J. P. Schumacher at Green Bay there is a harpoon point of this class which has two barbs one below the other, and about $1\frac{1}{4}$ inches apart. It comes from Depere Township, Brown County.

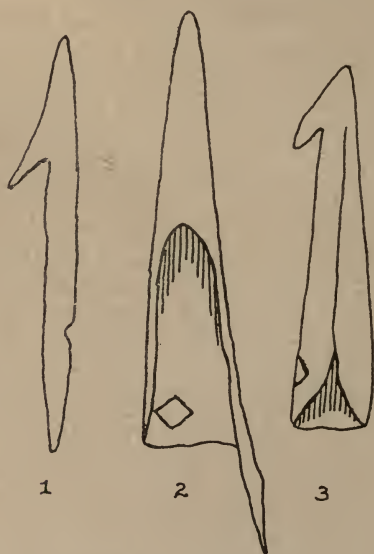
"Iron harpoons of similar form, but frequently possessing from two to three barbs, sometimes alternating on opposite sides of the implement, are said to be still in use on the Northern Wisconsin Indian reservations for spearing large fish."

These harpoons, which were furnished to the natives by the fur traders or made for them by the Indian and pioneer blacksmiths, have been found on many contact sites and old trading post sites, in the state.

It is altogether likely that their form was suggested to the earliest traders by the copper harpoon points of similar form which they found the natives using. In these trade specimens the lower extremity is blunt and turned to one

side this extremity being driven into a hole in the side of the wooden handle to which the point was lashed with cord or sinew. The copper points have a pointed extremity which was driven or forced into the end of the spear shaft.

3. "A stout, curious, but closely allied form is to be seen in the Milwaukee Museum collections. This implement is somewhat triangular in section, about eight and a half inches in length and three-fourths of an inch in breadth at the middle. The ends taper to a blunt point. The thinner edge of the implement is furnished with four stout broad barbs, separated from each other by a distance of about one and a half inches (Fig. 57)." This specimen of multiple barbed point is unique. So far as known no other copper point like it has been found since this one was described in 1904.



COPPER HARPOONS

Figure 1

4. Harpoon points which are conical in form and are hollow to the tip of the point or nearly to the tip. The simplest form has no barb. A square or rectangular hole for the attachment of a line is cut in one side (near the middle of the side or near the base).

In a second form one edge of the implement is produced in a sharp point or barb, this extending beyond the base. (Fig. 1, No. 2). They have a square hole cut in the side or base of the cone.

The third form has a short stout barb near the point of the implement. (Fig. 1, No. 3).

Of the first form there is in the Hamilton collection a specimen which was found at Two Rivers. It is $2\frac{1}{8}$ inches long. Several of these are illustrated in the 1904 monograph. One has a circular perforation. The other has two such perforations opposite each other. Of the second form described there are two specimens in the Hamilton collection. One from Outagamie County is $2\frac{5}{8}$ inches long. The other from Lake Mills, Jefferson county, is $3\frac{1}{2}$ inches long. The barb is $\frac{3}{4}$ of an inch long.

The third form is represented by a specimen found at Two Rivers. Its length is $2\frac{1}{2}$ inches. It is the only specimen of this form recorded from Wisconsin. All of the specimens of this class are of the toggle type of harpoon being representations in native metal of some of the deer or elk horn harpoons which are also conical in form with a hollowed-out base into which a wooden shaft was inserted.

When an animal was struck with one of these points the shaft was withdrawn to allow the head to toggle under the skin. Such specimens are in use among the Eskimo. They have been found in Ontario and New York.

5. In a fifth class are placed fixed harpoon points provided with a broad flat blade and a socket in the tang into which the wooden harpoon shaft may be thrust and fastened with a copper rivet. One edge of the blade is provided near its base with a broad flat barb. In all but one of a number of specimens known to the writer this barb is on the right side of the blade. All have a large or small rivet hole in the socket. Only a very small number of this class of harpoon points have been found.

The largest and finest known specimen is $6\frac{1}{4}$ inches long. It was found at Kewaunee, Kewaunee County. Its blade is one inch in width at its widest part, its socket $1\frac{1}{8}$ inches in width. A specimen in the State Historical Museum comes from Nepeuskun, Winnebago County. Its length is $4\frac{1}{4}$ inches. Other specimens come from near Wauwatosa,

from Mequon, Ozaukee County, and from Rugby Junction, Washington County.

Use and Distribution of Harpoon Points

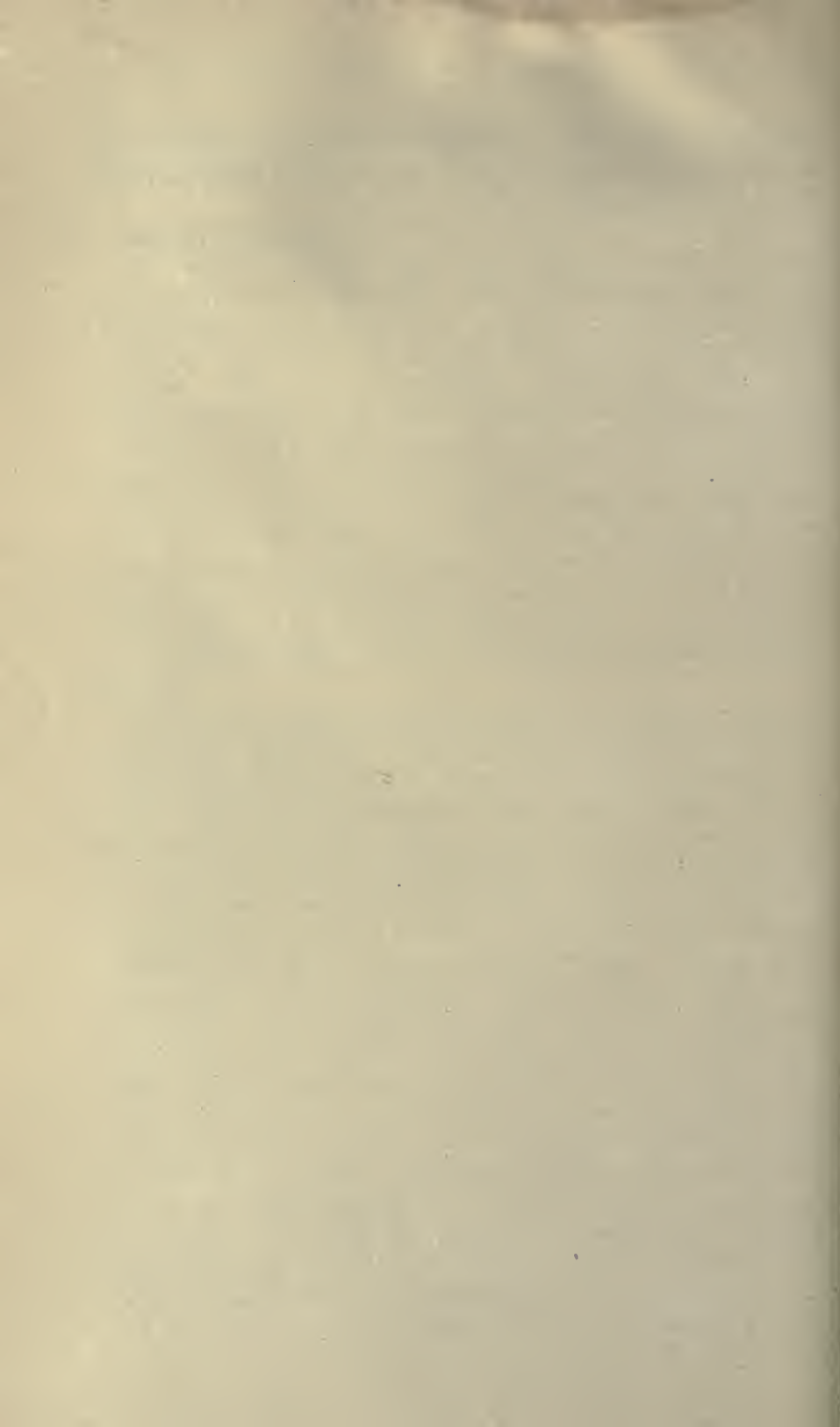
The harpoon or fish spear was extensively used by the early Indians of Wisconsin. The wooden spear shaft was tipped with points made of bone, antler, native copper and iron, the latter kind being obtained from the early white traders. With these serviceable implements which the Indian used with great skill, sturgeon were speared in the waters of Lake Pepin, in Lake Winnebago and the Menomonee River. The Winnebago are known to have speared both pike and pickerel in Lakes Kegonsa and Waubesa. The Potawatomi state that their ancestors speared eels and other fish in Geneva Lake. From the distribution of bone, antler, native copper and iron harpoons on old Indian village sites it would appear that harpoons were once in use in procuring fish food in many other localities in Wisconsin.

There is a considerable literature on American Indian harpoons to which O. T. Mason, Charles Rau, W. M. Beauchamp, David Boyle, E. W. Nelson, W. J. Wintemberg and other American archaeologists have contributed. W. J. Wintemberg describes three classes of bone, antler and ivory harpoon points in an admirable monograph published in the 1905 Annual Archaeological Report of Ontario. The simplest forms of these are the unilaterally barbed, provided with barbs on one side of the blade. These have been found to occur in Alaska, Alberta, British Columbia, California, Maine, Manitoba, Massachusetts, Michigan, Minnesota, New York, Nova Scotia, Ohio and Wisconsin. These include both single and multiple barbed points. In New York some have been found in graves associated with the unilaterally barbed. Some Wisconsin specimens have as many as six barbs. Bilaterally barbed harpoon points also have a wide distribution. They continue in use among the Indians of California, British Columbia and Alaska. Specimens are also found in Maine, Massachusetts, New York, Pennsylvania and Vermont.

A third class are the toggle-head type of harpoon points

elsewhere mentioned. Such specimens are in use by the Eskimo. Specimens have also been found in Ontario, New York and Wisconsin.

Charles E. Brown



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FISH-SHAPED SHELL ORNAMENTS

The Wisconsin Archeologist

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Vol. 7

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New Series

No. 2

WISCONSIN INDIAN FISHING—PRIMITIVE AND MODERN

Herbert W. Kuhm

PREFATORY

Although much has been recorded concerning the fishing activities of the Wisconsin aborigines, it is unfortunately scattered through many volumes.

The intention of the writer is to record for the information of students of Wisconsin archeology the evidence available concerning native Indian fishing. This has proven an inviting field for research for it aids to a great extent in reconstructing an interesting phase of the life of primitive man in this state.

The principal reliance of the American aborigines for a major part of their food supply was upon fish. Fish was the basis of subsistence of most of the Indian tribes. It was by the abundance of this article of food that certain centers of aboriginal population were created. Likewise was this a factor of no little importance in influencing the tribal migrations of primitive man.

Dorsey was informed by Iowa chiefs that "their people and the Oto, Missouri, Omaha and Ponca 'once formed part of the Winnebago nation'. According to the tradition of these tribes, at an early period they came with the Winnebago from their priscan home north of the Great Lakes, but that the Winnebago stopped on the shore of a great lake (Lake Michigan) attracted by the abundant fish." (Bur. Amer. Ethn., Bull. 30, p. 612)

Hence it is evident that the early American Indian found "Ouisconsin," with its abundance of lakes and streams that teemed with aquatic life, unequalled for fishing.

Evidences of aboriginal fishing activities are still to be found by the archeologist in the fish hooks, fish spears and net weights that are his occasional find.

Fish, water-fowl, and crustacea were so easily obtained that no tribe need feel the pangs of hunger while following a stream. Consequently it is by the river-banks that the searcher for archeological specimens will often find chips and artifacts reminiscent of the primitive hunters and fishermen.

Here and there one is yet able to find an Indian "fishing-place" almost as in days primeval, but these are fast disappearing, fulfilling the prophecy of Passaconaway, great sachem of the Pennacooks, who warned his race that "though the palefaces are now only few in numbers, they are to be as numerous as the leaves in the forest; the red man's fishing-places will be choked with dams and whirring mills."

On the shores of the Great Lakes fishing was an extensive primitive industry, engaged in by the Indians with consummate skill. For a considerable distance out over these bodies of water their canoes could pass with safety, and the fish caught in these waters added largely to the food supply of the great Algonkian tribes of this extensive lacustrine region.

In his "Handbook of Aboriginal American Antiquities," Dr. W. H. Holmes states that "fishing was a leading avocation of the people of the Great Lakes area; their ancient culture was about on a par with that of the aboriginal inhabitants of the eastern part of the country."

"The fisherman of to-day, in following his occupation, still resorts to a number of devices that originated with the Indian," writes Leo J. Frachtenberg in his discussion of "Our Indebtedness to the American Indian."

"Thus, he is indebted to him among other things for the use of the fish weir, for the method of catching fish by narcotic poisons, and for the practice of catching fish by torchlight. Also he taught our farmers the use of fish manure."

"Their work and occupation consists almost entirely in hunting and fishing," is an oft-recurring phrase in the literature on our early American Indian.

With ingeniously devised fish hooks, deftly made spears, and strongly woven nets, the Indians caught the large quantities of fish that formed so important a part of their sustenance.

FISH HOOKS

Starting from the simple device of attaching the bait to the end of the line, the primitive Indians progressed to the more efficient gorge hook, which consisted of a spike of wood, bone, or antler, sharpened at both ends, and fastened at its middle to the line. From a spike set obliquely in the end of a pliant shaft evolved a plain hook, then a barbed hook.

The materials used by the Wisconsin aborigines for the manufacture of fish hooks, included wood, bone, shell, antler and copper. The few flint fish hooks to be seen in some collections are regarded as frauds.

In view of the fact that fishing with hooks was commonly practiced by the North American Indians at the time of their first contact with Europeans, the comparative scarcity of fish hooks in the regions formerly occupied by them is unusual.

Bone Fish Hooks

Only a limited number of bone fish hooks have been collected in Wisconsin. A logical inference that the primitive Indians of Wisconsin used bone and antler fishing implements prior to those of copper may be drawn from the report of Dr. Alphonse Gerend that the Black River village sites, Sheboygan county, were formerly inhabited by a shell-using people usually termed "clam eaters." (Wis. Archeol., v. 19, no. 3)

"These shell using people, whether or not they formed a class distinct from the ordinary villagers, whose remains are found in predominant numbers, are nevertheless characterized by customs not observed by the majority of the former."

"In the first place they employed the common unio shell in their arts and used the animal within as an article of food. On account of this fact they have been termed clam eaters.

"Near these shell heaps are found bone and horn implements and a distinct variety of pottery. Stone objects are only rarely found near these shell deposits. These consist of heaps of net weights and other rudely fashioned stones. Neither are copper objects often found near these shell heaps. Bone implements that probably served as fish hooks are reported to have been found."

Simon Kahquados (Quitos), a speaker of the Forest county Potawatomi, further informed Dr. Gerend "that the historic or modern Indians in Sheboygan county employed bone fish hooks made from the leg of a deer several inches in length, pointed and barbed at both ends, and grooved in the middle for the attachment of the cord."

In the refuse pits on an Indian site near Kingston, in the Grand River region, Green Lake county, John A. Jeske reported that "a fine series of bone and antler implements, including a bone fish hook and harpoon, were found." (Wis. Archeol., v. 1, no. 1, 1922).

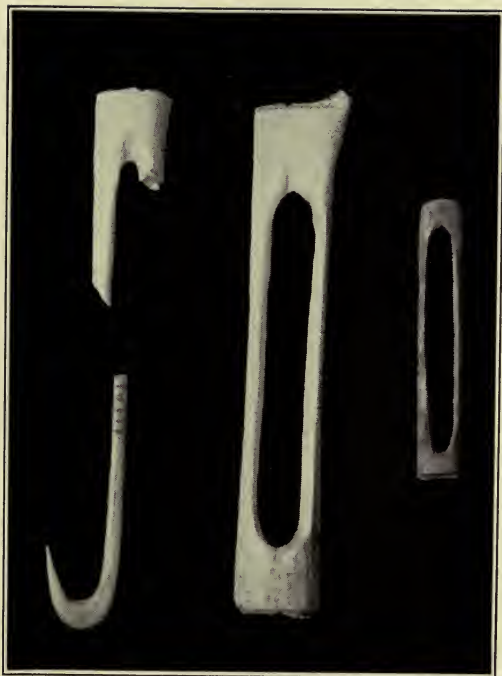
Dr. Walter J. Hoffman, in his study of "The Menomini Tribe," states that their primitive fish hooks "were made of two pieces of bone joined together at the lower extremity so as to resemble a V in shape. One arm of the hook was longer than the other, and to this longer arm the line was attached."

Speaking of the same tribe Alanson Skinner, in his "Material Culture of the Menomini," states that "their fish hooks, made of bone or native copper, are generally, if not always, barbless, and were used by the Menomini before, and to some extent, after the period of European contact."

Copper Fish Hooks

Among native copper implements fish hooks are probably the archeologists' most usual find, although this, by no means, signifies that they are of common occurrence.

The primitive inhabitants of Wisconsin obtained their supplies of virgin copper chiefly from their shallow mines in the Lake Superior region where traces of their crude mining activities are abundant. The crude copper was broken away from the parent mass by heating it and then hammering it off with stone implements. From ham-



BONE FISHHOOKS
Completed and in Course of Manufacture
Plate 1

mered-down sheets and strips of copper fish hooks were manufactured.

In 1884 Charles L. Mann, of Milwaukee, presented a Wisconsin copper fish hook to Charles Rau, who was then compiling his Smithsonian treatise on "Pre-historic Fishing." Although Mr. Rau at that time knew of the existence of several copper fish hooks in the United States, Mr. Mann's specimen was the only one he could obtain.

Mr. Mann described its mode of manufacture so well that Mr. Rau quoted his words as follows: "It is made of copper, hammered thin, and rolled just as one would roll up a piece of paper by carefully beginning at the edge. It is not only an entirely unique and heretofore unnoticed method of aboriginal workmanship, but also in the nature of corroborative evidence that all our copper implements were produced by hammering."

This hook, which had a swelling shank, perhaps produced intentionally for the purpose of affording a hold to the line, was found, together with a copper awl, in loose white sand near the mouth of the Oconto river at Green Bay. The consistency of the soil no doubt accounts for their unusually good preservation.

That hundreds of fish hooks and fragments of possibly thousands of others have been collected from the aboriginal village and camp sites extending along the west shore of Lake Michigan at intervals from the north line of Milwaukee county to Kewaunee county, and possibly beyond, is the assertion of C. E. Brown in his monograph on "Native Copper Implements of Wisconsin." (Wis. Archeol., v. 3, no. 2)

Mr. Brown further states that copper fish hooks "have also been obtained in numbers from the village sites at Green Lake and at various other localities along the upper Wisconsin, Fox, Wolf and Little Wolf rivers and elsewhere in this part of the state where good fishing was to be had. Some have also been found far to the north along the Lake Superior shore.

"Most specimens are of small size, from less than an inch up to 2 inches in length. They are mostly circular, though sometimes decidedly square, in section. The points curve and slant outward and inward at all angles and degrees

of curvature. None of them, so far as has been ascertained, possess any indication of a barb.

"The shank at the point of attachment to the line is most frequently plain. Sometimes, however, it is notched, flattened, bent over and flattened, or even bent over to form an eye."

One specimen in the Gerend collection has the upper extremity bent downward for the better attachment of the line.

In the collection of the late H. P. Hamilton is a cache of ten remarkably fine fish hooks of copper obtained from the banks of the Little Wolf river, in Muckwa township, Waupaca county. These vary from $2\frac{1}{2}$ to $2\frac{3}{4}$ inches in length, the strongly and broadly curved hooks reaching up to about opposite the middle of the shank. Some are circular and the others square in section and all are of a nearly uniform thickness of $\frac{1}{4}$ inch. Several have the tips flattened.

The Sheboygan county sites, situated along the sandy shore of Lake Michigan beginning at the mouth of the Black river in the town of Wilson and continuing south at intervals for fifteen miles, have yielded an abundance of copper fish hooks.

"Among the finished copper implements, fish hooks of various sizes and shapes, bear silent testimony to what appears to have been one of the principal activities of the occupants of these sites," wrote Dr. Gerend in the third issue of *The Wisconsin Archeologist*.

Fully two decades later, Dr. Gerend in discussing the finds on these same sites, stated that "many fine fish hooks have been found. Some of these have had circular constrictions while one is supplied with a hole at the end for the attachment of the line. The latter specimen seems to have served as a needle at one time being later transformed into a fish hook. Some of these implements (fish hooks) are still unbent yet finished objects in every other particular."

Speaking of the Black river village sites, Dr. Gerend mentions that "John Gerend at one time found 50 fish hooks of various sizes on one small space that had just been exposed by the wind."

He further reports that "Mr. Rudolph Kuehne, of Sheboygan, "obtained from the New Amsterdam site six copper fish hooks. These lay on top of each other and had become united in a mass by verdigris. All are of slender form with a notched shank. Four other fish hooks lay nearby."

Dr. A. R. Whitman, of Merrill, has among his fine collection of copper implements, a stout fish hook 3 inches long and distinctly unusual in that it is provided with an eye.

Large fish hooks were probably used as gaff hooks. A number of these stout copper fish hooks are in the State Historical museum, while the Rev. F. S. Dayton, of New London, has others in his collection.

On the shores of Green Bay copper fish hooks have been collected from old Menomini camp and village sites all the way from the Menominee river to Big Suamico. F. J. B. Duchateau has in his collection ten copper fish hooks from the latter site. (11-4 Wis. Archeologist, 131) Many hooks have come from Menomini sites in Waupaca county.

In the Milwaukee public museum is an exhibit of ten copper fish hooks, ranging in size from one to six inches. Included, also, are two copper barbs for fish hooks. The cache of ten fish hooks mentioned as in the Henry P. Hamilton collection is now in the State Historical museum at Madison. Being found together and all of about the same size it is very likely that these were used on a set line.

Iron fish hooks were furnished to the Indians by the fur-traders and specimens of these are sometimes found on Wisconsin Indian village sites.

HARPOON POINTS

Specimens of native harpoon points found in the excavation of various archeological sites in Wisconsin range from stone, bone and antler, through copper, to the trade harpoon of iron.

Harpoon points are divided into two classes, namely, those unilaterally barbed and having the barbs along one side of the blade or point, and the bilaterally barbed type, with prongs on both sides. Both the Wisconsin copper and bone

harpoon points belong to the first type, being invariably unilaterally barbed.

Stone Harpoon Points

The writer knows of only one native Wisconsin stone harpoon point having been found, that being a specimen discovered in the sand blows on the banks of the Wisconsin river near the old Richland City site in Richland county.

This unique specimen is unilaterally barbed, about 2½ inches in length, and is of yellow chert. It was uncovered by Leland R. Cooper, a member of the Wisconsin Archeological society, during field work in that locality in August, 1926. It was found on what is known as the Pine river camp site. C. E. Brown reports that others have been found both in Wisconsin and in other states.

Bone Harpoon Points

Implements of bone are not nearly as common as those made of stone and copper, yet they appear to have played an important part in the domestic life of the early Indian. Due to the ready deterioration of bone, comparatively few specimens of harpoon heads made of this substance have been found.

W. J. Wintenberg, in his paper on "Bone and Horn Harpoon Heads," states that "in accounts of the early American colonists are to be found many references to the use of harpoons by the Indians in spearing fish."

The harpoon head of bone is characterized by having one or more prongs which are directed slightly backward. This head was attached to a wooden shaft which may or may not have had an attached cord which the fisherman retained in his hand when the harpoon was hurled.

According to W. C. McKern, members of the Milwaukee public museum expedition found a specimen of bone harpoon, 3¼ inches long and characterized by four prongs unilaterally arranged in a turtle effigy mound in the Nitschke group, Burnett township, Dodge county, in July, 1927.

Another bone harpoon, with eight prongs and approximately 5 inches long, was found by members of this same

expedition in what they termed the "gourd" mound of the same group.

From the Black River village sites in Sheboygan county several single-barbed bone harpoon points of small size have been collected. In one of the wind-swept areas at the Sheboygan village sites a bone harpoon point with three barbs was discovered. It became a part of the Gerend collection.

The Green Lake county collection of S. D. Mitchell contained a five-barbed bone harpoon point. In the same collection there was a six-barbed specimen of similar form, and the upper half of another.

Another example, measuring $5\frac{1}{2}$ inches in length and possessing three barbs, was found near Sturgeon Bay, Door county, and became a part of the J. P. Schumacher collection.

Other specimens of bone harpoon points are in the collections of the State Historical museum. Some are from the Menominee river region.

Copper Harpoon Points

The native copper harpoon points of Wisconsin are grouped into four distinct classes by C. E. Brown in his monograph on "The Native Copper Implements of Wisconsin," which appeared in *The Wisconsin Archeologist*, vol. 3, no. 2. The writer quotes Mr. Brown's descriptions:

Type 1—

Short, flattened, seldom exceeding $2\frac{1}{2}$ inches in length. One side is either straight or presents a continuous curve from extremity to extremity. The other edge is curved or straight from the point downward to about opposite the middle of the implement where it terminates in a barb. From there it narrows to the other extremity thus forming a stem.

Occasionally this is notched on either side near its base. A number of specimens of this type have been recovered from the Lake Michigan shore village sites.

Type 2—

A second and less frequent form is cylindrical in section and tapers to a sharp point at each extremity. Removed from one extremity by several inches, more or less, is a stout and very pronounced barb. All are of large size.

Earliest records of the finding of specimens of this type occur in the address on "Prehistoric Wisconsin," given by Prof. James D. Butler before the State Historical society at its annual session held in the assembly chamber of the state capitol at Madison on Feb. 18, 1876.

Prof. Butler announced that Mr. de Neveu, of Fond du Lac, had presented two specimens of harpoon points to the society, both being single-barbed specimens found near Fond du Lac, the one being 4 inches, the other about $8\frac{1}{2}$ inches in length.

Another single-barbed copper harpoon point, measuring $9\frac{3}{4}$ inches in length, was found in Waukesha county in 1877 and presented to the state society by Dr. John A. Rice, of Merton, in the same county.

The largest specimen of this type known to have been found in Wisconsin measures $10\frac{3}{4}$ inches. This fine copper harpoon head was found in Shawano county. It is a dull green color, beautifully marked with prominent longitudinal ridges. This specimen is square in section, about $\frac{1}{2}$ inch thick in the middle and tapers to a point at either extremity. The single stout barb is $\frac{5}{8}$ of an inch in length and projects outward and downward from the shaft at a distance of $3\frac{3}{8}$ inches from the nearest extremity.

Type 3—

Implements of this type are somewhat triangular in section. The ends taper to a blunted point. The thinner edge is featured by several broad, stout barbs.

A specimen of this type is in the Milwaukee Museum collection. It is $8\frac{1}{2}$ inches in length and about $\frac{3}{4}$ of an inch in breadth at the middle. It has four stout barbs, separated from one another by a distance of about $1\frac{1}{2}$ inches.

Type 4—

This is the socketed type, having the edges at its base turned over to form a socket, the more easily facilitating its being made secure to a shaft.

According to records all specimens of this type have a characteristic rivet hole in the socket. One edge of the blade is prolonged into a barb. Otherwise this type does not differ in shape from some of the flat-backed socketed spearpoints.

Among the copper implements in the Milwaukee public museum collection which were collected in Milwaukee



COPPER FISHHOOKS, SCRAPER AND HARPOON POINTS
Plate 2

county is a small socketed harpoon point, which was found near Wauwatosa. It was donated by Carl Thal.

Another specimen of this rather rare type of implement was recovered at Mequon, in Ozaukee county. It is 4 inches long.

In a recent issue of the Wisconsin Archeologist (v. 7, no. 1, n. s.) Mr. Brown has revised his classification of native copper harpoon points adding a class of conical points sometimes provided with a barb and a perforation for the attachment of a line.

Trade Harpoon Points

Following contact with the whites, the Indians of Wisconsin, as elsewhere, were supplied with iron harpoon points by the French, British and American fur traders. They soon replaced the native bone and copper points.

The trade harpoon points of Wisconsin have been described by C. E. Brown as consisting of "iron rods, cylindrical in section and less than a half inch in diameter, one end of which is drawn to a tapering point and the other sometimes tapering extremity bent over to form a heel which could be inserted into the middle of a wooden shaft, thus assisting in securely fastening it. Near the end of the point are one, two or three stout pointed barbs. These barbs are on opposite sides of the spear, one below the other." (Wis. Archeol., vol. 17, no. 3)

The largest specimen of a trade harpoon point, in the State Historical museum at Madison, is 12½ inches long and the smallest 8½ inches. Numerous specimens of this type of trade implement have been found in Wisconsin and examples are to be seen in many collections.

FISH SPEARS

The pre-historic Indian is generally regarded as having been a fish-hunter before he became a fish-catcher; in other words, the spearing and shooting of fish preceded the methods of capturing them by means of hooks and nets.

No doubt many of the dart heads of chipped silicious material, which are found everywhere in Wisconsin, served

as armatures of spears and arrows used in the capture of fish.

Spear points that were employed by the aborigines as fishing implements are characteristically slender, very long in proportion to their width. From the fact that they are numerous along the banks of rivers and creeks it is supposed that they were largely, if not exclusively, used in spearing or shooting fish.

It is well-nigh impossible to positively identify a spear point as having been used for fishing purposes. The proximity of good fishing grounds and, to some small extent, the size and shape of the implement, are all the basis one has for surmising a specimen's former utilitarian function.

"Even among the finished implements it is often difficult to decide whether a specimen may have served the Indians as a knife or as an arrow or spear point; some would appear to have served almost equally well for any and all these purposes." (C. E. Brown, vol. 20, no. 1, Wis. Archeol.)

Simon Kahquados (Quitos) a Forest county Potawatomi, informed Dr. Alphonse Gerend that "the historic or modern Indians in Sheboygan county made cylindrical spear heads from deer horn with which they speared fish." Dr. Gerend reports that such specimens have been found on the Black River village sites. (Wis. Archeol., vol. 19, no. 3)

The Indian fishing spear consisted of a shaft at the head of which was a copper, bone, horn or thin, elongated flint point. The spear was generally used in the taking of large fish.

Spearing was a favorite Indian mode of taking fish. The Indian fisherman was very expert in striking fish when they came up the rivers to spawn. Along the banks of rapid streams the Indians stationed themselves on rocks and speared fish as they passed.

"In former times fishing among the Winnebago Indians of Wisconsin seems to have been done exclusively by spearing or by shooting. The spear (woca) consisted of a long stick provided with a bone or horn point. Spearing was done preferably at night with the aid of torches made of pine pitch." (Dr. Paul Radin, "The Winnebago Tribe", 37th Annual Report, Bu. of Am. Eth.)

Col. Abram Edwards writes that in 1818 he, with seven expert canoemen, paddled along Lake Michigan from Green Bay to Chicago. "Near Manitowoc," states Col. Edwards, "many Indians were out in canoes spearing whitefish."

Other authority also has it that the wide expanse of water at the mouth of the Little Manitowoc river was once a favorite Indian fishing place. The natives came for considerable distances to participate in the fish spearing at this place.

The Chippewa of Wisconsin were noted fishermen. They used the spear and harpoon with skill. It was thus that whitefish were taken at Sault Ste. Marie. The Chippewa were exceedingly expert in spearing fish from their canoes in the swift-flowing waters at the rapids or Sault.

From the "Letters of Father Charlevoix", (1763) we have gleaned the following interesting data: "The savages take the sturgeon in the Lakes in this manner:—a man is at each of the two ends of a canoe, he behind steers and the other stands, upholding a dart in one hand, to which a long cord is fastened; the other end is tied to one of the bars of the canoe.

"As soon as he sees the sturgeon in his reach, he throws his dart and endeavors to strike where there are no scales. If the fish is wounded it flies, and draws the canoe along, but after having swam about 150 paces it dies, then they draw up the cord and take it. A savage with his spear will sometimes strike 50 in three hours' time."

"Sturgeon were usually captured by spearing," says Alanson Skinner of the Menomini. (Material Culture of the Menomini). "The spears used for this purpose were bone or copper-headed harpoons.

"Another form, probably used for catching smaller fish, was a variety of trident. In this case a cedar pole, at least 10 to 12 feet long, was made to receive two outward slanting cedar prongs, serrated inwardly, with a central spike between them. This armament was held in place by a firm binding of cedar-bark twine. The fish was impaled by the thrust of the central spike and prevented from escaping by the barbed or toothed side-prongs."

Spearing Fish at Night

Fish spearing often took place at night by torch light.

The Indians devised various means of holding the torches, from the simple one of holding a flaming pine knot on a piece of bark covered with earth to a more elaborate method where a framework was built on the end of a canoe, five feet or more above the water, upon which the burning torch was placed. Fish, attracted by the light, could be speared very rapidly.

The torches used in night fishing were usually pine knots. Sometimes dry cedar bark was stuck in an alder stem, and after hot deer and moose tallow had been poured onto it, the Indian fisherman ignited it and used it as a flambeau or torch.

Some historians hold that it was from this Indian method of night fishing that Lac du Flambeau, in Vilas county, got its name, the French traders naming it "Lake of the Torch."

Tightly rolled and tied pieces of birch bark were sometimes used by the Chippewa as torches in fishing.

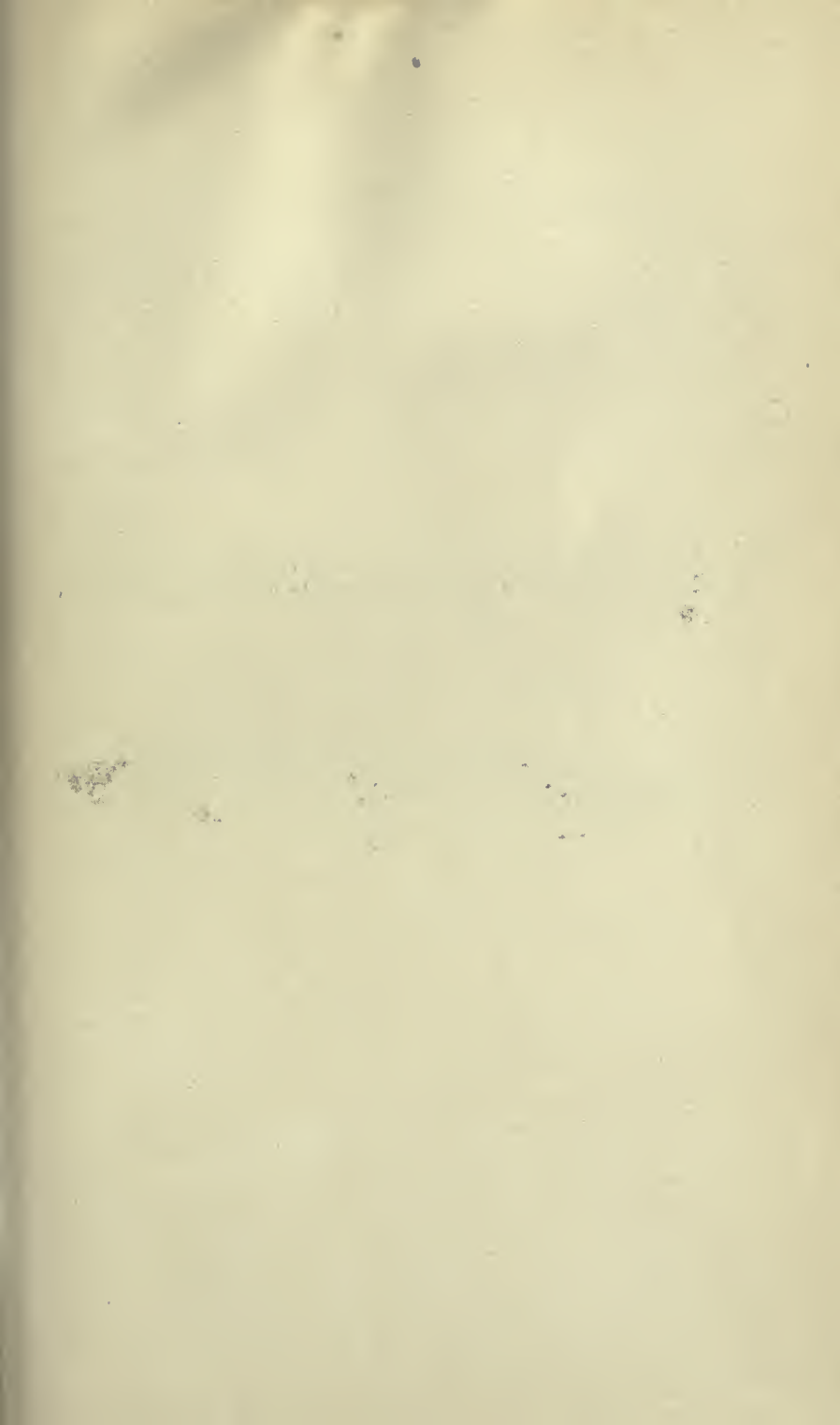
Publius V. Lawson also makes mention of night fishing with torches by the lake shore bands of Potawatomi, stating that "white fish were speared off the shore of Lake Michigan by day and by torchlight at night, the torches being set up on the bows of their boats." (Wis. Archeol., vol. 19, no. 2)

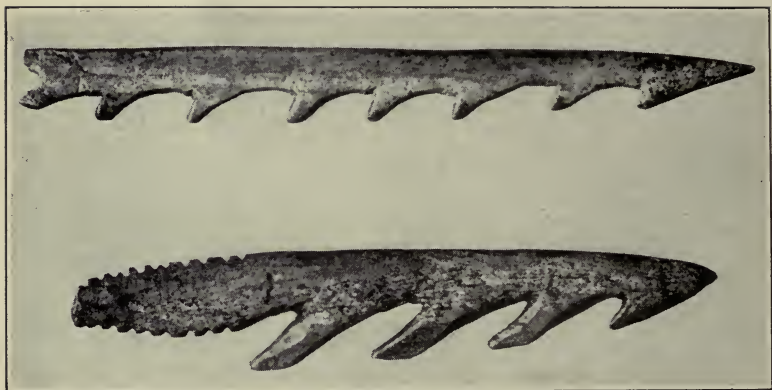
SHOOTING FISH

The writer includes fish shooting with spearing, for in shooting the Indian merely employed a spear of smaller size, projecting it from a bow instead of hurling it.

The Winnebago of Wisconsin, the "Hotcongara" or "big fish people," were unusually adept at spearing fish and often used the bow and arrow for shooting fish.

Dr. Paul Radin, in his study of "The Winnebago Tribe," states that "in shooting fish a long arrowlike stick man-nuxinixini) with a pointed end, whittled and frayed at the base like the ceremonial staff of the Bear clan, was discharged from an ordinary bow. The method of taking





BONE HARPOONS
Nitschke Mounds, Burnett Township, Dodge County
Plate 3

fish with the bow and arrow was usually confined to shallow waters." (Eth. Ann. 37)

Isaac Ernisse, an old settler of Sheboygan, informed Dr. A. Gerend that in 1850, at the time of his arrival, a camp of several hundred Indians, mostly Chippewa, was located a half mile north of the Holland township line. There he often "saw them wading into the lake waist deep to shoot fish, which were plentiful. Their arrows were fastened to their bodies by cords." (Wis. Archeol., vol. 19, no. 3)

Writing of the Menomini, Alanson Skinner states that "in summer, fish were frequently shot with arrows in the shallows. A string was attached to the arrow and this in turn made fast to the bow." With reference to the Mascouten, or Prairie Potawatomi, Skinner writes that "in olden times, fish were shot with bows and arrows."

FISH LINES

The Indians used hair, sinew of deer and moose, twisted plant fibers and pine roots for the manufacture of their fish lines.

A favorite substance for line making with the Indians was basswood fiber. In preparing the basswood thread, the inner bark of the young sprouts was removed in sheets and boiled in water to which a large quantity of lye, made from wood ashes, had been added. This softened the fiber and permitted it to be manipulated without breaking. The bark was then pulled into shreds and these twisted into twine.

Dr. W. J. Hoffman states that from the wild hemp and nettle the Menomini of Wisconsin twisted fine strings for use as fishing lines. (14th Annual Report, Bureau of Ethnology, 1892).

Huron H. Smith, in his "Ethnobotany of the Menomini," describes several native Wisconsin plants that were made use of by the Menomini of this state for the manufacture of fishing lines.

Speaking of the "Spreading Dogbane", (*Apocynum androsaemifolium* L.), called "sa'nup" by the Menomini, Smith writes that "the outer bark and rind of this herb furnished the finest Menomini thread material. The smallest divi-

sions of this bast fiber are finer than our finest cotton thread and stronger. Just before the fruit has ripened the outer bark is peeled. By using three strands, it is plaited so that a very strong cord is obtained. It was also, by further combing and plaiting, made into heavier ropes."

Of the common milkweed (*Asclepias syriaca* L.) "mana-wi'tca" Smith reports that it and "other milkweeds are used in the same way that spreading dogbane is used, for sewing thread and making cords for fishlines, etc."

Smith also gives us an excellent description of the Menomini mode of obtaining the fiber of the basswood (*Tilia americana* L.). "Basswood bast or bark fiber was and is the ready cordage for the Menomini," writes Smith. "The women go to the forest to gather the raw material. Saplings are peeled in the spring when the cambium is active and is readily separable. A long strip of bark is cut off and the outer cortex is slightly cut. Then the bark is bent at the cut until it projects far enough to get the teeth fastened on the outer rind. This is then pulled off and thrown away. It is now ready for use, except dividing it down to the desired size. Should a ball of twine be wanted, the gathered bark is coiled and bound to keep it in a coil, then boiled in lye water. Then it is cut three feet long and rolled to break up the fibrovascular bundles. Finally, it is twisted and joined by the Menomini woman against her shin and between her palms. Basswood fiber is used widely in many arts. Matting, baskets and fish-nets are made from it." (Bulletin, Milwaukee Public Museum.)

"When they wanted to, Indians knew quite well where to go for material for fishing lines and nets," writes Charles F. Saunders in his "Useful Wild Plants of the United States."

Continuing Saunders states that "their knowledge of wild plants packed with useful fiber was extensive. One of the most widely distributed of these native fiber plants is the so-called Indian hemp (*Apocynum cannabinum*, L.), an herbaceous perennial with a smooth, milky-juiced, woody stem two to four feet high, and inconspicuous, greenish-white flowers producing very slender seed-pods about four inches long. It is found in thickets and dampish ground from Canada to Mexico and from the Atlantic to the Pa-

cific. The usual preliminary preparation—as in the case of all the wild fiber plants, I believe—was to rot the stems by soaking them in water. After that the outer bark readily separates and leaves exposed a soft, long, brownish fiber which is both strong and lasting. At one time some of the aborigines wove this into articles of clothing, but the commoner use of it was in making fish-and carrying-nets, string and ropes.

“Another fairly good fiber, utilizable for twine and rope, has been secured from several species of *Asclepias*, the familiar Milkweeds. Among these may be mentioned especially the Swamp Milkweed, (*Asclepias incarnata*, L.), with smooth stem and foliage, and red or rose-purple flowers. It is a frequent denizen of swampy land throughout the eastern half of the country from Canada to the Gulf.”

A few of the copper fish hooks found in Wisconsin have had bits of sinew or twisted fiber still attached to them. One specimen found by Rudolph Kuene, of Sheboygan, had attached to its shank a piece of fibrous cord of fine, thread-like texture. It was one of a cache of six copper fish hooks obtained from the New Amsterdam site, Sheboygan county. One of four others near by also had a piece of twine attached to it at the shank.

FISH NETS

The Indians of Wisconsin, as elsewhere, were adept in the fashioning of nets for fishing. Stems and the bark of trees yielded the substance for twine, which could then be twisted into cords and ropes for their nets.

That the lake shore bands of Potawatomi in Wisconsin fashioned their fish nets out of basswood bark cord was the information furnished by Quitos to Dr. A. Gerend and reported by Publius V. Lawson.

Quitos described them as being “hoop-nets, cigar shape, about four feet in diameter and fourteen feet long, with stones attached to keep them properly suspended. With canoes made of dug-out pine, or fashioned of birch bark, they fished all night in the lake with nets, securing white fish, trout and sturgeon. The Potawatomi had a fish dam

at Sheboygan where they caught pickerel, pike and suckers with scoop nets. At night set nets were used at the dam to take fish". (Wis. Archeol., vol. 19, no. 2)

The scoop net was much in favor with the Winnebago of Wisconsin. They also used the long net, or seine, with skill.

At the Sault Ste. Marie, the Chippewa used a scoop net to take white fish at the rapids. Two men pushed out in the stream in a canoe, one at the stern to manage the boat with a pole and force it up the rapids, while the other, standing at the bow, took the fish by plunging the net to the bottom and bagging the white fish as they attempted to run up the rapids. The pole to which the net was attached was about ten feet long.

"At the Sault de St. Marys, on Lake Superior, I saw considerable number of Chippewas living entirely on fish, which they catch with great ease at that place," wrote George Catlin in his "Letters on the American Indian, 1832-9.

Continuing, Catlin states: "white fish are caught in the greatest abundance in the rapids at that place. They are caught in immense quantities by the scoop nets of the Indians amongst the foaming and dashing water of the rapids. This unequalled fishing has been of vast importance to the immense numbers of Indians who have always assembled about it."

Speaking of the Mascoutens, or Prairie Potawatomie, Alanson Skinner states that "their nets were set along the shallows and eddies of rivers and lakes, and were raised from time to time by persons in canoes."

And of our native Menomini, Skinner states that "gill nets woven of bark-fiber cord were abundantly utilized by them. They were held upright in the water by means of lanceolate floats whittled of cedar and weighted down with sinkers of notched pebbles. No examples of these, nor of several varieties of fish snares, vaguely remembered by the elders, have come down to the present day. They probably closely resembled those still found among the Ojibwa."

Speaking further of the Menomini, Dr. Walter Hoffman informs us that "while the tribe still occupied the shores of Green Bay, great numbers of lake fish were caught,

chiefly among which was the whitefish. At that time, as well as subsequently, gill nets were used for placing along favorable places near the shore. These nets were made of cords of natural fibers."

Netting-Needles

In constructing some of their nets the Wisconsin Indians used netting-needles made of both wood and bone.

Clarence B. Moore believes that a number of perforated stone objects belonging to the class of so-called banner-stones and obtained from mounds at "The Indian Knoll", on Green River, Kentucky, "were not ceremonial or ornamental but had a definite practical use" as mesh-spacers. Similar banner-stones of square, oblong, reel and kindred shapes are found on Wisconsin village sites.

With these he found hook shaped objects of antler, probably used as netting needles. (Some Aboriginal Sites on Green River, Kentucky)

NET WEIGHTS

Although net weights are among the crudest aboriginal artifacts found, yet they are of no little interest for the important purpose they played in the domestic life of the aborigines and give added light to a phase of primitive existence.

As a means of sinking fish nets, flattened disks of stone, with fragments of the edges pecked away on opposite sides, enabling them easily to be tied to the meshes of the net, were much in favor with the Indians.

Many sinkers consist simply of water-worn pebbles, or irregular fragments of rock, rudely notched around the center, and sometimes also longitudinally.

Little labor was generally expended save in the selection of stones of proper sizes and their subsequent notching.

Sometimes, however, spherical stones were pecked with an encircling groove such as would permit secure attachment to the nets. Quite often very thin and flat stones were employed for this purpose.

"That one of the several methods formerly employed by

the Wisconsin Indians in securing a supply of fish was by the use of gill-nets is evidenced by the stone net weights found on their village sites along the west shore of Lake Michigan," writes Mr. Geo. A. West. (Wis. Archeol., v. 7, no. 3, 1908)

Continuing, Mr. West says further of these net weights that they "are usually oval in shape, from two to six inches in length, half as wide, less than an inch in thickness and contain an artificial notch on each side.

"The ordinary water-worn pebble of convenient form, taken from the beach, was notched by one or two simple blows and utilized as a sinker, the native fishermen thus availing themselves of the material nearest at hand. The softer varieties of stone were generally selected, yet many were made of granite and hard rocks."

The finding of a few archeological specimens may seem of no great consequence in throwing any light upon the customs of the primitive inhabitants of a certain region, yet these seemingly insignificant finds assume unusual importance when all the facts regarding their discovery, together with the records of other similar finds, are co-related.

This aspect of archeology, as illustrated in the finding of net weights in Wisconsin almost exclusively along the shores of lakes Superior and Michigan, has led Mr. West to the conclusion that "nets were used by the early Indians for the capturing of fish that swim in schools, as do the white-fish and herring of these lakes. From the absence of sinkers in any numbers along the shores of our interior lakes and streams, it is evident that other means, such as the spear, the arrow and fish trap, were employed by them in securing fish from those waters."

The discovery of notched net-weights on the Indian camp sites located at various points along the Lake Michigan shore-line from Kenosha, Wis., southward into Indiana was noted by Dr. W. A. Phillips in the Smithsonian report of 1897, p. 588.

Large numbers of net-weights have been secured from the village and camp sites in the vicinity of Kenosha and Sheboygan.

Dr. Alphonse Gerend has reported many net-weights as found on the Black River village sites, along the lake shore

a few miles south of Sheboygan. This region also yielded a fine series of similar specimens now in the collection of Lee R. Whitney. Two caches of net-weights were found by W. C. McKern and Leland R. Cooper at Oostburg, Holland township, Sheboygan county, in October, 1926.

The F. H. Lyman collection, at Kenosha, included more than 200 net-weights collected from former Indian fishing places in that locality. Four net-weights, found on the Kenosha Indian village site by Geo. A. West in 1907, are in the primitive Wisconsin fishing apparatus exhibit in the anthropological section of the public museum at Milwaukee.

Mr. West also secured a number of fine net-weights on the shore of Lake Superior, near Bayfield, in Bayfield county.

It has been recorded that "notched pebble net-weights, occasionally in heaps of a score or more being at one place, are found on the village sites at Two Rivers, (Manitowoc county). The shifting sands constantly uncover new records of former occupation." (Wis. Archeol., v. 14, no. 4)

Series and single specimens of net-weights collected by Charles E. Brown on both the Black River and Kenosha sites have been placed in the State Historical museum; in the Public museum at Oshkosh; in the museums at St. Francis seminary, at Beloit, Carroll and Ripon colleges, and at Lawrence University.

Since Mr. West's article was published notched net-weights have been found on inland camp sites as far west in the state as Devils Lake and as far north in the Wisconsin Valley as the Eau Pleine river.

The aboriginal village sites in the Four Lakes region in Dane county have yielded many pebble net sinkers. A good series of these is to be seen in the archeological collection of the State Historical museum at Madison. They are oval in shape and of small size, the largest measuring $2\frac{1}{2}$ inches in length and about 1 inch in thickness.

The various specimens weigh from 3 to 7 ounces. All are provided with a shallow groove which encircles the specimens in the direction of their longest axis. They are made from pebbles of sandstone, quartz, syenite and other materials procurable in the desired sizes on the shores of these lakes.

Some occasional specimens have both a longitudinal and a transverse groove.

FISH TRAPS

Various forms of traps, or wiers, were constructed by the Indians to facilitate the catching of fish. Sometimes at a shallow place in a stream, posts were driven into the river bed at short intervals across the channel and a network of willow branches then strung along from one stake to the other, forming a sort of dam.

In the dammed-up waters thus formed fish were more readily speared and caught in nets.

Villages and camps were often located at or near rifts and shallow points of streams where spearing fish could best be carried on. At such places fish traps were sometimes constructed, into which fish could be driven.

At times low walls of boulders were built from one side of a stream to the other, having a central opening through which fish were forced into a trap, where they could easily be taken with dip-nets.

The Indians sometimes would "beat" a stream with brush-wood mats, commencing some distance above the barrier which they had built across-stream, advancing in phalanx formation toward their "catch-all," and driving many of the fish inhabiting that stream toward the trap, where they were speared or netted.

The Winnebago of Wisconsin had a type of fish trap common to their tribe, according to Dr. Paul Radin, it being a "triangular wier loaded with a stone at its base. This was placed at the head of a waterfall caused by the artificial damming of a stream."

Publius V. Lawson, in his report on the Winnebago of Wisconsin, also makes mention of their fish traps. "Although their rivers are deep," he writes, "they close the stream with a sort of hurdle, leaving open places through which the fish can pass; in these spaces they set a sort of net which they can cast or draw in as they please. This fishing suffices to maintain large villages."

Another Wisconsin tribe, the Potawatomi, had their own ingenious type of fish trap. After fish ran up a river to



BOULDER FISH TRAP
Crawfish River at Milford
Plate 4

spawn, the Potawatomi, according to Lawson, made a dam in the river to keep them from escaping, and then netted them, using hoop-nets, cigar shape, about 4 feet in diameter and 14 feet long.

Alanson Skinner, in his "Notes on the Material Culture of the Mascoutens, or Prairie Potawatomi," presents an interesting description of the stone fish dams of this Wisconsin tribe. "V-shaped stone wiers were built across streams," writes Skinner, "crossing from bank to bank, with the apex downstream. At the point an opening was left, through which the fish passed into bagshaped nets held in place with poles. Sometimes large fishbaskets were used in place of nets. The mesh of these was large, so that little fish might pass through. Often the wiers, instead of being V-shaped, were irregular, with many downstream angles, at each of which a bag or basket was set."

Skinner also gives us the following description of a type of net trap of the Mascouten: "In summer the Indians sometimes repaired to the banks of slow moving streams where fires were lighted at short distances. Corn was pounded and the hulls thrown in the water near the light. The next night no fires were lighted, but more corn was thrown in. A net was set up on each side of the baited spot, and when the splashing of the fish who came to eat the corn was heard, seines were drawn round to impound them. The next morning the men entered the water and drove the fish into the nets, where they were easily secured."

Geo. H. Loskiel, a Moravian missionary, wrote, in 1894, of an Iroquoian method of trapping fish. The Iroquois were represented in Wisconsin by two tribes, the Oneida, who came here in 1821, and the Huron (Wyandot) who fled to Wisconsin in 1649 and 1650 to escape destruction from their relatives, the powerful New York Iroquois.

Describing an Iroquoian fish trap, Loskiel writes: "The Indians run a dam of stones across the stream, where its depth will admit of it, not in a straight line, but in two parts, verging towards each other in an angle. An opening is left in the middle for the water to run off. At the opening they place a box, the bottom of which is full of holes. The Indians go up the stream and drag a huge

brush and vine affair down to the dam, thus driving the fish ahead and into the box. By this contrivance they sometimes catch a thousand fish in half a day."

The Oneida held annual fishing feasts in the spring. When all were assembled, a row of stakes was placed across the stream and interwoven with branches to form an upright, stationary net. The fish were then driven downstream and another row of stakes and woven brushwood placed behind them. When this was done the spearing and netting commenced, and the division of the catch and feasting followed.

An interesting description of a type of Indian fish dam is given by James Adair in his "General Observation on the American Indians," written in 1775, and is as follows:

"The Indians have the art of catching fish in long crails, made with canes and hickory splinters, tapering to a point. They lay these at a fall of water, where stones are placed in two sloping lines from each bank, till they meet together in the middle of the rapid stream, where the intangled fish are soon drowned. Above such a place I have known them to fasten a wreath of long grape vines together, to reach across the river, with stones fastened at proper distances to rake the bottom; they will swim a mile with it, whooping and plunging all the way, driving the fish before them into their large pots."

Elkhart Lake Fish Trap

George W. Wolff, of Rhine, told Dr. A. Gerend of Indian fish traps in the bed of the creek that forms the outlet of Elkhart lake, Sheboygan county. Here a Menomini camp was situated. Dr. Gerend describes the traps as follows:

"They consisted of three parallel lines of upright sticks placed across the creek bed in a diagonal fashion, the first row being farthest apart, the second somewhat closer and those in the third being placed very close together so as to allow only the very small fish to escape.

"At one end of this line was formed a pocket in which fish congregated. In his youth Mr. Wolff has often taken from 50 to 100 pounds of fish from one of these traps. Later the whites made good use of the traps as they found them." (Wis. Archeol., v. 19, no. 3, 1903).

Yahara (Catfish) River Fish Trap

"The Home of the Badger," an aged pamphlet which recently came into the possession of C. E. Brown and which is believed to be the first printed history of Wisconsin, having been published at "Milwaukie: 1847, by I. A. Hopkins," contains a description of a fish trap at Madison, as follows:

"One thousand pounds of fish were taken with a seine at two hauls in the Fourth Lake at Madison. An Indian braided some willows over a slight fall in the Catfish (Yahara) river, and took 50 barrels of delicious fish in one week."

Milford Fish Trap

The boulder fish dam in the Crawfish river just above Milford, in Jefferson county, was pointed out a few years ago to Charles E. Brown by Robert P. Ferry, of Lake Mills. The water in the river was very high at the time affording no opportunity for an inspection of the dam.

The location of this dam was subsequently reported by Mr. Brown to the writer, who went to observe it in August, 1927. Seen at that time, when a prolonged drought had lowered the stream, the foundation of the stone wier was distinctly discernible. The boulder structure was V-shaped, crossing the stream from north bank to south bank, with the apex downstream, or eastward. At the point of the apex, slightly north of midstream, was an opening, where undoubtedly the bags, fishbaskets or nets of the Indian fishermen were placed, as was their custom, and which further served as an excellent vantage point for the spearing of fish making their way through the narrow passage.

The writer was directed to the trap by Julius Woelfer, of Milford. Mr. Woelfer stated that up until recent times another boulder fish trap, similar to the one still visible, was located about a hundred yards upstream, or westward. This latter dam was no longer intact at the time of my visit but at its reported location many large boulders resembling those that made up the surviving dam further downstream, were still to be seen scattered about in the riverbed.

Mr. Woelfer said these boulder fish dams were made after the manner of construction of the ordinary stone fences still

to be seen on some farms. The tops of these stone structures, extending across stream, afforded the Indians with a convenient footbridge in addition to their utilitarian function of trapping fish.

Sheboygan Fish Trap

For a description of this fish trap we quote Dr. Alphonse Gerend's report of it, which appeared in *The Wisconsin Archeologist*, vol. 19, no. 3: .

"Between Seeley Hill and Follett's creek on one side and another prominent bank about one-half mile to the west is a large, flat, low area. Situated probably more on the western side of this so-called prairie, on both sides of the river, was the greatest historic Indian village in Sheboygan county.

"Joe Wisconsin, an Indian born at Sheboygan Falls, stated to the writer, through the interpreter, Simon Kahquados (Quitos), that this village was known as Pe-ji-bo-nau-ga-ning, meaning "fish dam," as the Indians had constructed a dam in the river at this point for catching fish."

Brown Deer Fish Trap

In the Milwaukee river, a short distance east of Brown Deer, the Indians had built a fish trap. It was constructed of boulders and ran diagonally across a shallow place in the stream.

This fish trap was pointed out to C. E. Brown in 1907 by Charles Schmidt, whose farm was near by. Mr. Brown's description of it in a letter to the writer is as follows:

"So many changes have taken place in the Milwaukee river since the years when I wandered there that I much doubt whether one could find any traces of it now. Its location as given in my report on Milwaukee county (*Wis. Archeol.*, vol. 15, no. 2) was in N. W. $\frac{1}{4}$ of Section 18, Milwaukee township.

"The boulders, of quite large size, were laid diagonally across a rather shallow place in the stream with an opening near one bank. Here the Potawatomi Indians, in early days, stationed themselves to spear or net the fish as they

came through the opening. Other Indians in the river above drove the fish toward the stones."

In the summer of 1927 the writer, on several occasions, visited the region thus reported to be the site of this boulder fish dam but could find no traces of it. This evidence has also been confirmed by Louis Pierron, a member of this society who has lived in the locality of this dam for nearly two decades. Mr. Pierron also explored this region for traces of the aforementioned dam and likewise found no tangible remains of it. Mr. Pierron's opinion, as expressed to the writer, with whom he was co-operating in an attempt to trace this dam, is that the annual freshets following the breaking up of the ice each spring would, in a few years time, break up any such boulder barrier to the stream as this Indian fish dam had been.

Fox River Fish Trap

An interesting description of a fish trap in the Fox river is to be found in Father Claude Allouez' "Report for the Year 1670," which appears in the Wisconsin Historical Collections. (Vol. xvi).

"On the 17th of April," writes Allouez, "we ascended the River saint Francois (the Fox river). After proceeding four leagues, we found the Village of the Savages called Sacy (Sacs), whose people were beginning a work that well deserves its place here. From one bank of the River to the other they make a barrience by driving down large stakes in two brasses of water, so there is a kind of bridge over the stream for the fishermen, who, with the help of a small wier, easily catch the sturgeon and every other kind of fish which this dam stops, although the water does not cease to flow between the stakes. They call this contrivance 'Mitilikan,' and it serves them during the Spring and a part of the Summer." The location of this wier is said by Thwaites to have been at the De Pere rapids of the Fox. ("Jesuit Relations," Thwaites, vol. 54, p. 217).

ICE-FISHING

During the winter, when the lakes and streams were frozen over, holes were cut in the ice by the Indians and through these many fish were speared and netted.

One mode of Indian ice-fishing was for the fisherman to lie down over the hole he had cut and to cover himself up with a blanket so as to make it semi-dark, thus enabling him more readily to see the fish swimming about. It was then fairly easy to spear them.

Publius V. Lawson reported that the Potawatomi inhabiting the west shore of Lake Michigan speared fish through the ice along the lake front, especially during March. (Wis. Archeol., v. 19, no. 2)

Alexander Henry, in a book on his travels (1760-76), describes another Indian method of ice-fishing, as follows: "The white fish is taken at Michilimacina in nets, which are set under the ice. To do this several holes are made in the ice, each at such distance from that behind it, that it may be reached under the ice by the end of a pole. A line of 60 fathoms in length is thus conveyed by hole to hole until it is extended to the length desired. This done, the line is now drawn back and the net brought under.

"A large stone (net weight) is made fast to the sinking line at each end, and let down to the bottom; the net is spread in the water by the lighters on its upper edge, sinkers on its lower, in the usual manner. The fish running against the net, entangle their gills in the meshes, and are thus held fast."

An interesting description of the manner of construction of a long-net similar to the foregoing is contained in Alanson Skinner's "Notes on the Material Culture of the Mascoutens or Prairie Potawatomi Indians," and reads as follows: "In former times, pine or cedar saplings with the tops left on, were set up in the water in winter and allowed to freeze in with the bushy tops exposed. Long hand-made gill nets of bark or fibre twine were stretched between these and pulled through a hole in the ice at intervals to remove the catch."

Another type of Mascouten ice fishing is described by Alanson Skinner. "In the month of February, the fishermen chopped holes in the ice and set up tipis over them. The fisher lay on the ice, under his shelter, and angled with a fish carved from shell or wood, weighted so that it would sink. This was attached by a short line to a short stick held in the hand. By manipulating the stick the lure was

made to move naturally, while with the other hand the spear was held in readiness. When a fish approached sluggishly to seize the bait, the line was drawn toward the fisherman, and the fish allowed to follow it until within thrusting range, when the fisherman speared it. Special medicines were used for this kind of fishing, and no one was allowed to usurp another man's place."

Two other Wisconsin tribes, the Menomini and the Ojibwa, or Chippewa, had a similar method of winter fishing mentioned by Alanson Skinner in his "Material Culture of the Menomini."

"In the winter," states Skinner, "the Menomini, like their Ojibwa neighbors, repair to the lakes to angle through the ice. A method, which is surely aboriginal, is as follows: A small hut of boughs is built on the ice and covered so tightly with a blanket or robe as to exclude the rays of the sun. Beneath the shelter a hole is cut, about a foot across. The fisherman, with the light above him excluded, finds the clear water transparent to a considerable depth. An artificial minnow, carved of wood and weighted with lead, is attached to a string and lowered into the water, where it is given a lifelike motion by jerking the cord which is usually fastened to the end of a short stick. When the fish attempts to seize the lure it is speared."

Skinner, in his cultural study of the Menomini, makes mention of the type of implement used by the aborigines to chop their fishing holes in the ice. "In chopping holes in the ice for fishing," he writes, "it is probable that the Menomini formerly used an ice-chisel of the same type as that described to me by old men among the Ojibwa and Cree. This implement consisted of a short handle to one end of which a narrow stone or copper celt was lashed, in such manner that the planes of blade and handle were continuous. Many celts of the type described are found on old Menomini sites."

FISH STONING

An Indian method of killing fish, equally as simple as that of clubbing, was that of stoning. The Indians stationed themselves along the shallows of a stream and either

dropped or hurled stones at the fish as they appeared within striking distance. Fish which the Indians succeeded in either stunning or killing in this manner were taken from the stream by hand or with the aid of dip nets.

FISH PINCHING

A rather ingenious Indian method of catching fish was by "pinching" them by means of a split stick which held the fish fast.

The fish pinching implement was like a spear and consisted of a sapling pole, pointed at the butt end and split for a short distance. At the top of the split a small wooden wedge was inserted to keep the two points apart. Here it was tied with bark cord or buckskin. With this implement, whose length varied up to nine feet, fish were pinned down and then thrown ashore.

In Lake Mendota, where the Yahara river enters the lake, and elsewhere in Wisconsin, it was reported to the writer by C. E. Brown that the Winnebago, in spawning time, captured pickerel by thus pinning them down in the shallows in the stream bed.

FISH CLUBBING

Another interesting phase of Indian fishing is fish "clubbing." This method was often carried on in shallow streams.

In the springtime the Milwaukee Potawatomi often caught large quantities of suckers by killing them with clubs in shallow streams like the Kinnikinnick. This was sometimes done at night by torchlight. Some Indians drove the schools of fish downstream where others clubbed them as they passed by certain points. The whites of Layton Park are said to have continued this practice up to 25 years ago.

Indians are also reported to have clubbed fish on a creek tributary to the Menominee river near New Butler, Waukesha county. "Suckers came up this creek in former days from the river and these the natives captured by clubbing." (Wis. Archeol., v. 2, no. 1, new series)

FISH SNARING

A method requiring some skill on the part of the Indian fisherman was that of snaring fish. The Indian fish snare was ingeniously made of 24 or 26 gauge copper wire. The Indian fisherman, seated where he could plainly see his prey in the water below, lowered his snare and slowly passed the well-nigh invisible copper loop of the snare over the head and gills of the fish. A quick upward motion caused the loop to fasten about the fish which was prevented from slipping off by the gills. Huron H. Smith, of the Milwaukee public museum staff, reported to the writer that he has seen this method in use even recently among the Chippewa Indians of Wisconsin.

Mr. Brown reports that the Potawatomi also occasionally followed this method especially at times when large fish like the pike refused to be attracted by a bait.

CRAW-FISHING

Indians were fond of crawfish as an article of food. Selecting a spot in a stream frequented by them, the Indians angled for crawfish in the following manner:—strips of half-roasted or barbecued venison were strung, several inches apart, upon reeds that had been sharpened at one end. Thus baited, many of these reeds were stuck into the riverbed. Remaining near, the Indian fisherman watched the baited reeds, pulling them up at intervals, shaking into paskets the crawfish adhering to the bits of meat, and then replacing the baited reeds in the water.

FISH LURES

Various methods were used by the Indian fishermen of Wisconsin to lure fish.

Corn. The use of corn by the Potawatomi Indians as a fish lure is described by Alanson Skinner as follows: "In summer the Indians sometimes repaired to the banks of slow moving streams where fires were lighted at short distances. Corn was pounded and the hulls thrown in the

water near the light. The next night no fires were lighted, but more corn was thrown in. A net was set up on each side of the baited spot, and when the splashing of the fish who came to eat the corn was heard, seines were drawn around to impound them. The next morning the men entered the water and drove the fish into nets." (Notes on the "Material Culture of the Mascoutens, or Prairie Potawatomi".)

Yellow Pimpernel. Huron H. Smith, curator of botany, Milwaukee public museum, informed the writer that the Colorado root of the yellow pimpernel (*Taenidia integririma*), called by the Menomini the "maniko'sa" (little manik), is used as a fish lure by our native Menomini.

The Menomini have two methods of using the yellow pimpernel root as a lure for fish. One is to pulverize the root and steep it, the bait then being soaked in the resulting liquid. Another more simple method is for the native fisherman to chew the root and simply spit on the bait after making it fast to the hook. (See "Ethnobotany of the Menomini Indians", Smith).

Shell and Wooden Lures. Our native Indians also used mechanical means to increase their catch. In this case a fish, carved from shell or wood, was employed.

The use of this type of fishing lure by the Potawatomi is described by Alanson Skinner as follows: "In the month of February, the fishermen chopped holes in the ice and set up tipis over them. The fisher lay on the ice, under his shelter, and angled with a fish carved from shell or wood, weighted so that it would sink. This was attached by a short line to a short stick held in the hand. By manipulating the stick the lure was made to move naturally, while with the other hand the spear was held in readiness. When a fish approaches sluggishly to seize the bait, the line was drawn toward the fisherman, and the fish allowed to follow until within thrusting range, then the fisherman speared it. Special medicines were used for this kind of fishing."

The Menomini and Ojibwa, or Chippewa, similarly used mechanical fish lures of this type, according to Skinner who states that "in the winter, the Menomini, like their Ojibwa neighbors, repair to the lakes to angle through the ice.

Their method, which is purely aboriginal, is as follows:—a small hut of boughs is built on the ice and covered so as to exclude the rays of the sun. Beneath the shelter a hole is cut, about a foot across. An artificial minnow, carved of wood and weighted with less lead, is attached to a string and lowered into the water, where it is given a lifelike motion by jerking the cord which is usually fastened to the end of a short stick. When the fish attempts to seize the lure it is speared.”

Under the separate caption, “Fish Effigies of Shell,” the writer makes mention of the finding of such shell fish lures just mentioned.

FISHING WITH NARCOTICS

A unique phase of Indian fishing was that of poisoning the catch through narcotics contained in plants.

In his “Useful Wild Plants of the United States,” Charles F. Saunders states that “wild plants were used in a method long practised by the Indians. The plants in question contain in their juices narcotic poisons which, stirred into the water of ponds, deep pools, or running streams temporarily dammed, containing fish, stupefy them without killing them, and cause them to float inert to the surface, where they may be easily gathered into baskets. No ill effects seem to appear from eating fish so poisoned. After the narcotic plants were thrown into pools of standing water, the dazed fish would float up to the top and had then only to be picked up. If placed in fresh water, they would soon revive.”

Saunders mentions two such narcotic plants used by the Indians, the Soap-plant, (*Chlorogalum pomeridianum*, Kunth.), and Turkey-Mullein, (*Croton setigerus*, Hook.).

The Indians of Wisconsin have been known to use narcotic plants to stupefy fish and thus facilitate their capture, but this method is but infrequently used by them and has been identified as of very recent usage.

This statement has been verified by Huron H. Smith, curator of botany, Milwaukee public museum. Mr. Smith informed the writer that although “turkey-mullein” is a native plant in this state, nevertheless he believes our Wisconsin Indians to have been ignorant regarding its nar-

cotic properties as applicable to fishing and doubts if it was ever used in this manner of fishing.

The only type of narcotic fishing on the part of Wisconsin Indians known to Mr. Smith is the use by our native Potawatomi of a plant of the bean family. A quantity of these beans were obtained in Oklahoma by members of the Wisconsin Potawatomi while visiting the Potawatomi in Oklahoma. They have not as yet been definitely identified although their poisonous potency has been determined as being due to their inherent hydrocyanic content.

This bean used by the Potawatomi may be identical, or similar, to a species employed by the Sauk since their residence in Oklahoma. It is mentioned, together with its use, by Alanson Skinner in his "Ethnology on the Sauk" as follows:

"Today the favorite method of fishing (of the Sauk) is one which they themselves avow they have learned from the neighboring Creek, since their residence in Oklahoma, the well-known water-poisoning method of the Muskogean tribes of the Gulf states.

"A long, threadlike root of the bean family called 'Devil's Shoestring,' (*Cracca virginia*), is made up into bundles and taken to good fishing water. Here a stake is driven in the bottom, with a good square top remaining about at the surface. On this the bundles of roots are placed and beaten with a mallet. The exuding juices soon make the water milky in appearance and when from ten to twenty pounds of the stuff have been beaten up, the juice saturates the water of the pool where the current is sluggish and the fish, numbed and dull, come gasping to the surface. The fishermen now gig or shoot them with bows and arrows. The work must be done quickly, as the fish usually recover completely within an hour."

And from Skinner's "Ethnology of the Ioway Indians," we learn that it is probably true, as the Ioway state, that they were unacquainted with the method of poisoning fish as employed by their Sauk neighbors, for the Sauk themselves claim to have learned this device from the Creek with whom they have associated since their exile in Oklahoma."

FISH AS FOOD

Much of the food supply of the early Wisconsin aborigines consisted of fish. In fact, when a tribe had had a particularly poor hunting season and was unable to lay up but a meager supply of animal food for the winter, fish, which could always be obtained, were relied upon to replenish the emptied larder.

Dr. Morse, who visited the Menomini at Green Bay in 1820, related the following as to their food: "In the spring they subsist on fish and sugar; in the summer, on fish and game; in fall, on wild rice and corn, and in winter on fish and game."

Scaling Fish

To scale their fish, the aborigines used stone and native copper knives. Even mussel shells, very practicable for this purpose because of their sharp edges, were made use of by the Indians of Wisconsin for the scaling of their catch.

Nicholas Perrot, who visited the large village of the Outagamie at Green Bay, 1665-1666, found the Outagamie scaling their fish with mussel shells. (Wis. Archeol., v. 20, no. 1).

Undoubtedly sharp stone scrapers were used at times by the Indians for scaling fish. Referring to stone scrapers, Gerard Fowke asserts that they "would also serve excellently for removing scales from fish, and as they are usually abundant in the vicinity of good fishing places, they were no doubt employed for this purpose. (The Mound Builder and Later Indians, p. 667).

Indian Methods of Preparing and Serving Fish

Fish to the Wisconsin Indians were rarely taboo as food, as was the case with the Apache, Navajo and Zuni. However an exception existed among the Winnebago of Wisconsin to whom the dogfish and the eel were taboo.

When caught, fish were usually boiled, or roasted on spits, and eaten. Fish were boiled in earthen pots and these, among most tribes in Wisconsin, were made with rounded bottoms to stand upright, but nearly if not all of the tribes

of Algonkian stock, which was well represented in Wisconsin, made their pots with pointed bases which required screwing down into the ashes of the fire hole or propping up with stones. Boiling the water was sometimes accomplished by dropping hot stones into the pot.

"The Indian women (at Green Bay) used to make a favorite dish of wild rice, corn and fish, boiled together, and called Tassimanony," writes James W. Biddle in his "Recollections of Green Bay, 1816-17." (Wis. Hist. Coll., vol. 1, p. 63).

In a letter, written in 1718, Sieur de La Mothe Cadillac recorded another interesting mode of preparing fish by the Indians, as follows: "It will probably be interesting to know what the Savages eat, and how they prepare their food. This is what is done: Indian corn is put in a mortar and crushed with a pestle. When sufficiently crushed, it is winnowed until nothing remains but the meal. This is boiled with water in a pot or kettle and at the same time whitefish is boiled in another kettle; when the meal is half boiled, the fish is taken out and mixed with the gruel, which is reduced to a liquid as white as milk. Afterward it is thrown into the pot and stirred with a ladle until completely cooked. In the evening fish is eaten in a variety of ways,—fried, broiled, boiled, smoked, or stewed." (Wis. Hist. Coll., vol. 16, p. 35).

Alanson Skinner, in his "Material Culture of the Menomini," states that "the Indian helped out their larder with smoked fish, which they often pounded into meal and used for soup, or, with other ingredients, for stew. Dry or smoked fish were often pounded in a mortar before boiling, or the pulverized mass could be added to mush. A dish held in high esteem was composed of the head and the fins of the sturgeon boiled with wild rice. Such especially delicious foods were called 'mitao-cooking.'"

The Indians were especially fond of sturgeon roe and following is Alanson Skinner's description as to how it was prepared and served:

Sturgeon roe was dried in the sun. A quadrangular scaffold was erected and covered with elm bark laid with the inside up. The edges of the bark were tied or weighted down so that it could not curl inward as it dried, and over

this a cedar-bark mat was thrown. The roe was spread on this covering with a paddle, and stirred from time to time, so that it might cure thoroughly. When finally dried, it was placed in cylindrical cases of swamp-ash bark, about a foot in diameter and two or three feet high. So prepared, the roe could be stored indefinitely. It could be eaten as it was, or it might be served in various ways, chief among which were the following:

Roe Pudding—To 3 tablespoonfuls of dried sturgeon roe, 3 equal quantities of flour were added. These were boiled together without seasoning and then served.

Roe Dumplings—To dried roe, boiling water was added until the eggs became of a doughy consistency. Then the water was poured off into another dish, and the eggs kneaded with the fingers. Handfuls were dropped into the boiling water and cooked. The water in which they were prepared made excellent soup.

Roe Cakes—To a quantity of dried roe, hot water was added until the eggs were of about the same consistency as dough. Salt was used for seasoning and the paste was kneaded and made into cakes which were patted into shape with the hands and then baked.

Raw Sturgeon Roe—Sturgeon roe was often kept until it turned black and smelled offensive. The eggs finally burst and fermented and made a dish very palatable, in spite of the disagreeable odor.

Of the methods of preparing fish for consumption by the Sauk, an Algonkian tribe that came to Wisconsin in about 1650, Alanson Skinner says: "Fish were generally boiled, but in olden times, when in the north, tradition has it that they were often dried a little and then smoked. In this condition, they were fit for food, or they could be boiled." ("Observations on the Ethnology of the Sauk Indians," Part iii).

Fish were everywhere a favorite food with the Indians of Wisconsin. Nearly all kinds were eaten and formed a common ingredient of hominy, corn soup, and other preparations. We find that "even the intestines were utilized in former times, though not at present, this economy having been practiced when the fish were being preserved for win-

ter use." (See "Jesuit Relations," R. G. Thwaites ed., vol. XXXIX, p. 215).

Following are several methods used by the Indians in general in the preparation of fish for food:

Boiled Fish. A very simple method was to boil fish until tender, adding salt to suit the taste.

Fish Soup. Fish of any kind is boiled in a pot with a quantity of water. It is then removed and coarse corn siftings stirred in to make a soup of suitable consistency.

Fish and Potato Soup. When potatoes are boiled, the fish are spread out on top and cooked. When done, the fish are removed. The soup is then seasoned to suit with salt and pepper.

Fried Fish. Fish are sometimes fried in deer or bear grease, salt and pepper being added. Eels are usually fried. No grease is added, but just a little water. Sturgeon is often cooked in the same way, or made the basis of corn soup.

Roasted Fish. The fish is cleaned and stretched open by inserting several small sticks. It is then impaled on another sharp stick, which is stuck in the ground before an open fire. The fish is salted before roasting.

The Use of Fish Oil

The fish guts and heads that remained after the smoking process were boiled to obtain fish oil. When deer brains, used in the Indian process of softening buckskin, were scarce, fish oil was used as a substitute. Buckskin was prepared by placing the hides in hot water to remove the hair, which could then be scraped off. Then either deer brains or fish oil were rubbed over the hide to soften it.

Fish as Fertilizer

One of the basic principles of the Indians' maize culture was the use of fish as fertilizer.

Leo J. Frachtenberg in "Our Indebtedness to the American Indian," asserts that "we Americans owe a great por-

tion of our progress and success to primitive races, above all to the American Indian. An examination of our culture reveals the fact that many of our accomplishments may be traced directly to assistance received from the American Indian. Our agriculture has been touched by the beneficial influence emanating from the Indian, for he has taught our farmer the use of fish manure."

"The Plymouth colonists were told to add fish to their old planting grounds," writes Bradford in his "History of the Plymouth Plantation." (Mass. Hist. Soc. Coll., 4th ser., iii, 1856).

In March, 1621, three months after the landing of the Pilgrims, Chief Massasoit came with his warriors and his friend, Squanto, to visit the settlement at Plymouth. Squanto became so enamored of his new friends that he moved to Plymouth. He gave his knowledge of Indian husbandry to the Pilgrims and taught them how to fertilize the soil with fish.

Wisconsin Indians sometimes fertilized the corn hills on their planting grounds with fish or fish entrails.

Indian Methods of Preserving Fish

The Indians cured their supplies of fish by drying them in the sun, or over fires. Then the product was sometimes finely ground and packed in skins or baskets for future use. In general, the woodland tribes mainly depended upon the deer family and fish for their animal food. Fish food, from its peculiar character, was often dried or frozen, but for preserving it for time of need it was more often smoked.

The Indian mode of smoking fish was to split them open and remove the bones, after which they were scarified in various directions, and then hung up for a time in the smoke of a fire. They were then hung on poles or on the branches of trees and freely exposed to the wind until perfectly dry. These smoked fish formed a principal food of the natives during the winter.

Alanson Skinner, in his "Material Culture of the Menomini," gives us an interesting description of that tribe's manner of curing fish. "Fish were dried on scaffolds," writes Skinner, "or split, tied by the tails or hung from a

cross-bar, and dried, either in the sun, or over a slow fire. To this day small fish, such as brook trout, are often smoked entire.

"Sturgeon and other large fish were drawn, split from the head down, and, like the smaller fish, suspended from a hurdle or laid on a grill and smoked or dried. Sometimes the sturgeon was sliced in flakes, which were smoked or sun dried.

"Grills for smoking fish were made as follows: Four crotched sticks a little over a yard long were set upright in the ground to form a square or oblong in the center of which was the fireplace. The four corner posts were connected by bars of short poles or sticks on which, in turn, were placed a series of light cross pieces."

As to the length of time required for thoroughly smoking the fish, Publius V. Lawson has noted that the lake shore bands of Potawatomi "smoked their fish on frames over a fire for two hours." (Wis. Archeol., v. 19, no. 2).

"The savages in the country of the Hurons cure fish in the following manner: they let them drip a little, and then cut off the heads and tails; they open them at the backs, and having emptied them, they make incisions, to allow the smoke to penetrate them thoroughly." So wrote Sagard Theodat as early as the year 1636.

Elisha Amidon, who came to Pike lake, Hartford township, Washington county, in 1846, informed C. E. Brown that the Pike lake Winnebago, who lived in wigwams covered with rush matting, speared or caught with a hook and line numerous fish, some of which were smoked for winter use. (Wis. Archeol., v. 6, no. 2, new series).

Lawson has stated that a whole band of Potawatomi would engage in catching and smoking fish for about ten days and that their smoked fish were often buried in caches, kept cool by running water below.

In winter the Indians employed a simple method of preserving their fish, namely that of freezing. Caught through the ice in very cold weather the fish froze within a short time after being caught.

The freezing of fish for their preservation is mentioned by the Hon. James Duane Doty in his "Northern Wisconsin in 1820." (Wis. Hist. Coll., vol. 7, p. 196). Writing of the

Indians inhabiting the region of Fond du Lac, Doty says: "A fish called by the savages too-nee-bee,—by the French, "telibee," greatly resembling the whitefish, is taken in nets of from 60 to 100 fathoms long, late in the autumn, and to preserve them, they are hung up by the tail in the air until frozen."

Fish were sometimes preserved by simply drying them. The fish were cut and cleaned, rubbed well with salt and dried in the sun or over a fire and then placed in a bark box or other receptacle.

In the winter the Winnebago sometimes erected their wigwams over the caches of smoked fish.

FISH EFFIGIES OF SHELL

Several fish effigies, carved from unio shells, were obtained on an Indian site near Kingston, in the Grand River region, Green Lake county. Illustrations of these can be found in Plate 6, page 29, of *The Wisconsin Archeologist*, vol. 1, no. 1, new series.

Town L. Miller, of Fairwater, possesses a native Indian ornament consisting of a small clam shell cut to represent a fish. Another is in a Green Bay collection.

These may have served a dual purpose, namely, that of an article of adornment, as a pendant, and likewise as a fish lure. The writer has already described the use of fish carved from shell as an Indian fish lure under a foregoing subdivision bearing that title. (See "Fish Lures.")

The suggestion has been made that the shape of some of the slate and other perforated gorgets of the American Indians were suggested by the forms of fish.

FISH EFFIGY PIPES

The fish as a decorative motif was used by the aborigines of Wisconsin occasionally in their construction of pipe bowls. Evidence of this kind is to be had in three specimens in the George A. West collection of aboriginal pipes of Wisconsin, now a permanent exhibit in the anthropological section of the Milwaukee public museum.

A description of these rare archeological finds is to be

found in Mr. West's fine monograph on "Aboriginal Pipes of Wisconsin," which appeared in *The Wisconsin Archeologist* as numbers 3 and 4 of volume 4.

The first of these fish effigy pipes mentioned is one of red sandstone, formed into the shape of a fish. It is $5\frac{1}{2}$ inches in length, $2\frac{1}{2}$ inches high and 1 inch thick. It was found by O. S. Ludington near Prairie du Chien and an illustration of it is shown as figure 116 on page 127.

Another, shown as figure 117, is also suggestive of a fish. It was found in Somers township, Kenosha county, and is made of pink steatite.

The third of these fish effigy pipes is of red catlinite. The part of the bowl facing away from the smoker is flattened and shows the engraved representation of a fish. It was found by Louis Jones near Packwaukee, in Marquette county, and is illustrated as figure 140 in the West treatise.

Fish effigy pipes are mentioned by Alanson Skinner in his "Material Culture of the Menomini Indians," in which he states that "the last vestige of stone working among the Menomini survives in their manufacture of stone pipes. Some of their pipes, often having stone stems, are carved to represent fish."

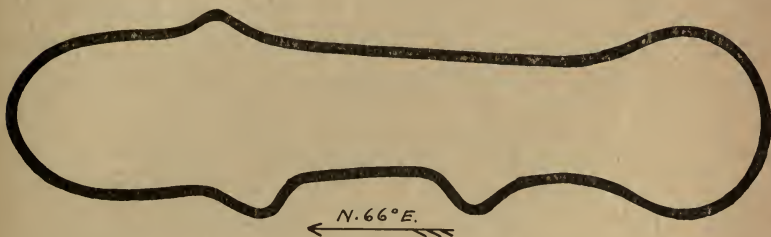
FISH EFFIGY MOUNDS

The identification of certain types of aboriginal tumuli as being fish effigy mounds has long been a controversial subject. Some students of Wisconsin archeology maintain that some of the effigy mounds in this state were intended by their creators to represent fish. Particularly is this theory applicable to the so-called "tapering linear" mound. Some archeologists contend that most linear earthworks are conventionalized effigies.

This latter theory is expressed by Arlow B. Stout in "The Winnebago and the Mound, (*Wis. Archeol.*, v. 9, no. 4) as follows: "The writer has held for a number of years that the various types of linear mounds found in Wisconsin are in reality effigy mounds built to represent objective or subjective totems. The totem theory has been accepted in its application to the pure effigy. It is here extended to include the linear type. The only theory consistent with the

archeological facts as known today is that the linear mounds of Wisconsin are in reality effigy mounds."

That the aborigines of this state erected tumuli in the vicinity of their habitations in representation of their respective clan totems or emblems is a belief supported by Indian tradition and by general information recently obtained from their descendants. Apropos of which it has been stated that "as a result of their researches Wisconsin archeologists have arrived at the conclusion that the effigies which are found in mound groups in the vicinity of stone age village sites in this state represent the totems of their former Indian inhabitants." (Wis. Archeol., vol. 14, no. 3). Since this was written Mr. Brown has stated that some effigies are certainly not totemic monuments.



FISH EFFIGY MOUND
Nitschke Group, Burnett Township, Dodge County
Fig. 1

Authentic records are available that fish clans and gentes existed in four tribes that inhabited Wisconsin namely, the Winnebago, the Sauk, the Menomini and the Mascouten, or Prairie Potawatomi. Hence the conjecture that some of these fish clans erected tumuli in representation of their clan totems is highly plausible.

The Rev. Stephen D. Peet in his discussion of "The Emblematic Mounds of Wisconsin," in a paper appearing in the Wisconsin Historical Collections, (vol. 9, 1882), remarks that "in considering these figures, one division of form which they represent might be added and made to include fishes, reptiles and such creatures. We now turn to a consideration of the animal effigies as such, with a view to classifying them. Of the fishes, we find perch, pickerel, cat-fish and bass. These animals are found associated

closely together, without regard to their order or species, but only according to their familiarity or commonness. Their effigies are frequently grouped together on the banks of lakes. At Lake Koshkonong an interesting cluster, consisting of an observation mound, guarded by the panther upon one side, and by the catfish upon the other, is to be found."

C. E. Brown informed the writer that a mound preserved at the head of Clam or Clem lake, at Waupaca, is thought to represent a catfish. An illustration of this mound appears in an issue of the Wisconsin Archeologist.

The existence of a possible fish effigy mound was made known to the writer by W. C. McKern, associate curator of the Milwaukee Public museum. It is one of the McLaughry mound group on the north shore of Buffalo lake, one mile from Packwaukee, in Marquette county. This mound, explored by the Milwaukee Public museum mound expedition in August, 1925, is 140 ft. in length, with a maximum width of 38 ft., having the shape of a fish in profile with one upper and two lower fins, a bullet-nosed rounded head and, at the extremity, a broad tail. "While we were charting this mound," stated Mr. McKern, "the uniqueness of its shape had the members of the expedition conjecturing variedly as to its probable totemic representation, but as soon as a chart had been completed the fish-like resemblance of the mound was evident." A bulletin on the McLaughry mound group is in preparation by Mr. McKern and will appear as Bulletin No. 2, of Volume III, of the publications of the Milwaukee Public Museum.

Writing of fish effigy mounds, the Rev. Stephen D. Peet, in his "Prehistoric America" (1890), states that in Wisconsin "the effigies of fish are somewhat common on the banks of the lakes, and they always show where the best fishing is and where the best kind of fish may be caught. To illustrate: Delavan lake is celebrated for the abundance of pickerel. On the other hand, at Lake Koshkonong the pickerel is mingled with catfish, suckers, bass and other kinds. There are effigies of catfish on the east side of Lake Koshkonong. There is also a large group of fish effigies on the west side. The Four Lakes region (at Madison),

is celebrated for its fishing. There are several effigies of fish in this region." (Figure 213 on page 312 shows "fish effigy mound on the east end of Lake Monona. Another illustration shows fish-shaped tumuli at Delavan lake).

FISH CLANS

A surviving testimonial that fish played a vital part in the economic life of the earliest Wisconsin Indians is found in the so-called "origin myths" of various native clans existing to this modern day.

In each tribe there existed a division on the basis of kinship into clans or gentes. The names given to these were usually those of animals, birds, reptiles and of natural objects from which its members claimed descent, or which were regarded in common as guardian deities. These were known as their totems. The term "clan" implies to the female, the term "gens" to the male line.

Among the Mascouten

The Mascoutens had among their totems the golden carp, the tortoise and the crab. Two of their fifteen gentes were the N'ma, sturgeon, and the N'mapena, carp. Among the Water Phratry was the Fish Clan, the Kigo's. The Muskigwa'ni, or Sunfish band, of the Prairie Potawatomi had its habitat around the Muskego lakes in Waukesha county.

Native testimony among the Mascouten holds that the tribal chieftainship in olden times was an office hereditary in the Fish clan.

Water, or the Sea, is one of the archaic deities of the Mascouten. Its principal inhabitant is the Merman, visualized as being with a fish's body and a man's head. He is also known to the Sauk and the Chippewa, and perhaps corresponds to the "Man-Sturgeon" of the Menomini.

This tradition is perpetuated by the origin myth of the Fish clan which relates that "a great feast was given in the honor of the fish. A trout came and told them that the Fish clan would be the greatest division of their people, and none should ever equal it."

The interesting Fish Dance ceremony of the Mascouten has been recorded by Alanson Skinner as follows:

"As the Fish clan is the leading clan of the Prairie Potawatomi, the various bundles of the other clans are laid out in a row, with the Fish clan bundle at the head. Before giving the ceremony, the Fish clan chief, who is also chief of the tribe, has called upon his followers to bring certain small minor bundles, which, in some instances, consist of pounded fish bones.

"After the hanging of the gifts, the Fish Dance is held. A certain song is struck up, whereupon the girls and women produce native-made seines, often handsomely ornamented. In these they catch the men, two girls manipulating each net. These seines are usually kept after the manner of the sacred bundles by the women of the clan. After the dance the entire clan retires to the bank of the nearest body of water, where, led by the chief, they sing the clan song and, at its close, sprinkle tobacco on the water.

"Among the objects which comprise the sacred bundle of the Fish clan which reposes in the care of the tribal chief, is a green painted wooden model of a sunfish representing the fish which turned into a child and became founder of the clan, as related in the origin myth.

"Tattooing instruments, which are also kept in the bundle, are composed of needles made from the teeth of a fish called 'Pashitu', (sheepshead), or, more recently, of the teeth of the gar."

Among the Winnebago.

There was a Fish clan among the Winnebago Indians of Wisconsin. According to Oliver Lemere the last surviving member of this clan died several years ago.

The Winnebago called themselves "Hotcangara," which is generally translated by ethnologists as meaning "big fish people." Ho is the Winnebago word for fish. Dr. Paul Radin, in his study of "The Winnebago Tribe," (Eth. Ann. 37), reports the name of the Winnebago Fish clan as being "Ho Hik'ik'aradjera" and states that no information of any consequence was obtainable about this clan and that at the time of obtaining his information, (1908-1913), only a few survivors of the clan were living and almost all of his informants claimed they were recent additions to the tribe.

Among the Menomini

Dr. Walter J. Hoffman, in his report on the Menomini appearing in the 14th annual report of the Bureau of American Ethnology, 1892, mentions the Menomini totems or gentes in the order of their importance. Third rank in the Bear Phratry was held by the "Miqa'no" or Turtle clan; seventh place was the "Noma'eu" or Sturgeon clan, and eighth rank belonged to the "Maku'ti or Sunfish clan.

From Alanson Skinner's study of "The Material Culture of the Menomini," we learn that "Sturgeon played so important a part in the early Menomini economy that they receive frequent mention in their mythology. One of the first acts of the Great Underground Bear, after he had metamorphosed himself into the original human ancestor of the tribe, was to make a bark canoe and a spear, that he, and his people, after him, might take fish. The myth over the separation of the Menomini tribe ascribes this to a dispute over sturgeon."

Among the Sauk

The Sauk were a great canoe people while they were in the Great Lakes region, using both the birch bark canoe and dug-out proficiently to carry on their lake fishing.

J. N. B. Hewitt, writing in the "Handbook of American Indians" gives among the fourteen Sauk gentes three identified with fish, namely, Trout, Sturgeon and Bass. On the other hand, Marston, in naming twelve Sauk gentes in "Indian Tribes of the Upper Mississippi and the Great Lakes Region", mentions the Sturgeon, Perch and Black Bass. Alanson Skinner, in his "Observations on the Ethnology of the Sauk Indians," vouches for but one Fish gens, the Trout, the Sauk name for the Fish gens being "Pakahamouwa'-sujik" which translated signifies "tight bodied people."

Sauk tradition holds that the office of tribal chieftain was hereditary in the Fish clan of the tribe.

FISHING SEASONS

Another testimonial of the important role that fishing played in the economic life of the early Wisconsin Indians

is the fact that certain seasons and months derived their names from fishing activities.

Thus with the Winnebago of Wisconsin we find that the fourth month ("wira") of each year was called by them Hoi'doginana, which translated means "fish become visible month." This naturally refers to the ice clearing away with the spring thaws opening the lakes and streams to the fishermen.

In a calendar of monthly activities, as given by a member of the Bear clan of the Wisconsin Winnebago to Dr. Paul Radin, the fourth division of their year was the "month in which people begin to fish."

"Whether they were in their villages at intervals during the fourth and fifth month is hard to determine," writes Dr. Radin. "It is probable that their fishing or hunting trips consumed a considerable portion of, if not the entire, month. (The Winnebago Tribe, Eth. Ann. 37, pp. 124-5).

The Mascouten, or Prairie Potawatomi, are known to have likewise associated their fishing with certain seasons of the year. Publius V. Lawson writes of the Potawatomie that "the years were divided into twelve months by the moon. The new year starts with the first run of fish up the river. These are red horse and suckers. This period corresponds to the middle of April, named Se-ce-bah-koto-ga kisis. Middle May is named Wah-be-go-ni-gi kisis. It is the time the sturgeon begin to run up the rivers for spawning. October is Nah-ma-ko-se kisis. It is the time when lake trout come near the shore and are speared in quantity." (Wis. Archeol., v. 19, no. 2).

GLOSSARY OF INDIAN FISH NAMES

1. *Menomini dialect (Algonkian)*

This first section of the Menomini vocabulary is based on a compilation by Alanson Skinner, appearing in his "Material Culture of the Menomini," published, 1921, by the Museum of the American Indian, Heye Foundation:—

Min'sa noma kos	-----	brook trout
Noma ko	-----	lake trout
Oka'o	-----	pike
Kinu'siu	-----	pickerel

Min'skinosin	-----	muskellunge
O seku'n	-----	small mouth bass
Miuna se'kun	-----	large mouth bass
Masai	-----	eel
Ose'neman	-----	red horse
Noma pin	-----	red sucker
A pes noma pin	-----	black sucker
Ma kwun akuti	-----	red and black gilled sunfish
Sipi'a nakuti	-----	rock bass ("river sunfish")
Sasaki'sa kwun	-----	silver bass
Na ka'suh	-----	herring (plural)
Ta komik	-----	whitefish
Nama'o	-----	sturgeon
Isa'wao	-----	yellow perch
Tei ceke kiuwanun	-----	"dogfish"
Wa seo	-----	catfish
Wase se	-----	bullhead
A na mak	-----	rotten fish

Fishing Tackle

Wasu kon	-----	jacklight for night fishing
Pimi eta nau	-----	cross-bar on canoe for attaching jacklight
Nutcimu'hakwun	-----	fish spear
Muski wun	-----	medicine to attract fish
Ani'ti	-----	fish-spear shaft
Ahe'tawukon	-----	cedar-bark torch for jacklight
Asauwa'pa ko kon	-----	copper fish hook
Osauwa'pa naticima'hagwan	-----	copper fish spear
Na'ma s'anup	-----	gill net
Pitaha tcikun	-----	trap
Nama'o usna'ka'so	-----	sturgeon barrier

The following vocabulary, also Menomini, is recorded by Dr. Walter J. Hoffman in his study of "The Menomini Indians," appearing in the 14th Annual Report of the Bureau of American Ethnology, 1892:—

Noma'sok	-----	fish
Maia'nomek ko sa	-----	fishers in general
Nama'i	-----	sturgeon (also Noma'eu)
Namai'wan	-----	sturgeon (plural)
Oka'wa	-----	pike
Wa seq'se	-----	catfish
Keta'kibihot	-----	sunfish ("the striped one")
Naku ti	-----	sunfish (modern name)
Ogaq'kane	-----	place of pike
Nami'oqka	-----	to kill sturgeon
Hani'tiyau	-----	fish spears
Mika'no	-----	turtle
Ma'shenomak	-----	great fish

2. Ojibwa (Chippewa) dialect (Algonkian)

Nah ma	-----	sturgeon
Mishe nah ma	-----	great sturgeon
Mas ke no zha	-----	muskellunge
O zhaw wush ko ke no zha	-----	green pickerel

Ke no zha	pickerel
Nah ma go she	trout
Na zhum ma goosh	brook trout
Ne git che	buffalo fish
Mush she to	sheepshead
Mon nuh she gun	black bass
Ad dik kum aig	whitefish
Buh pug ga sa	large sucker
Nah ma bin	sucker
Mis kwun nah ma bin	red sucker
Mis kwaw zhe gun	red horse
Ug gud dwawsh	sunfish
Sah wa	yellow perch
O ka hah wis	fresh water herring
Mon num maig	great catfish
Ah wa sis sie	little catfish
Ke na beek gwum maig	eel
O da che gah oon	garfish
Shig gqum maig	shovel nose
Kuk gwum naun gwi	little toad fish
O gah suk	little dories
O gah	dory
Shaw ga she	crawfish
Ais	clam
Ais ainsi	little clam
Mis koan sug	red clams
Keego	fish in general
Me squad as	turtle
Mah she cay	snapping turtle
Nah ma go she kak ning	trout fishing
Ah kwe dau ke nash	fish dam ("stopping place")

3. Winnebago dialect (Siouan)

Ho	fish
Wank cunk	dogfish
Ket cunk	turtle
Kee zuntsh ga	soft shell turtle
Ho wak'a	eel
Na hoo rah roo hah ra	sturgeon spawn
Hosh a rac ah tah	fish spear
Mannu xini xini	fish arrow
Na hoo	large sturgeon
Nah hoo chak	little sturgeon
Ho wich	catfish

4. Potawatomi dialect (Algonkian)

Tukamas	shovel nose gar
Kinosha	pickerel
Wikitoa	buffalo fish
Wishu	yellow cat
Mianamak	channel cat
Muskikwa	sunfish
Mishikao	snapping turtle
Maskwaskuma	red horse
Namepia	"way deep"
Nabina	sucker
Pashitu	sheepshead
N'ma	sturgeon

N'mapena	-----	carp
Kenshaykum	-----	pickerel
Kenozhaykum	-----	lake pickerel
Nahmakos	-----	lake trout
Winnemeg	-----	catfish
Musk ee guack	-----	fishing place
Ahguah one ganing	-----	fish-go-to-shore
Pek qua	-----	fish gut
Pejibonau ganing	-----	fish dam
Nahma kose kisus	-----	lake trout month (October)
Nabina kisus	-----	sucker month (February)

5. Oneida dialect (Iroquoian)

Kuntshe	-----	fish
Dodiahto	-----	trout
Ahwadj	-----	bass
Skugahlux	-----	pike
Kunjcagoch	-----	sturgeon
Anowara	-----	turtle
Owenahoonts	-----	fin
Yutstaht	-----	scale

6. Sauk dialect (Algonkian)

Nemao	-----	sturgeon
Wa'pamak	-----	white catfish
Wi'shok	-----	yellow catfish
Wa'sesiu	-----	bullhead
Mukatamia'namak	-----	black fork-tail catfish
Wi'ketca	-----	buffalo fish
A'sikan	-----	bass
A'shika	-----	little bass
Si'kumak	-----	gar
Mukute A'sikun	-----	black bass
Wi'sukutao	-----	sunfish
Ketuk Kumaho	-----	spotted sunfish
Pa'shito	-----	sheepshead
Okawuk	-----	pike (pl.)
Maskwa'sekwahuk	-----	suckers
Pu ke'tuhuk	-----	chubs

(Sauk nomenclature is as given by Alanson Skinner in his "Ethnology of the Sauk Indians.")

MISCELLANY

"At the time of white contact, and for a long time before and after, the culture of the Menomini must have been almost maritime, and strongly differentiated from that of more recent years. It was essentially a culture of wild rice, fish and lake products."—Alanson Skinner, in "The Material Culture of the Menomini."

The following excerpt from "Prehistoric Cannibalism in America," an article appearing in *The Wisconsin Archeol-*

ogist, vol. 19, no. 1, and written by the Rev. A. N. Somers, throws some light on the fishing activities of the aborigines at ancient Aztalan:—

Speaking of a survey made at the famous ruins of the mound builders at Aztalan in the summer of 1888, the Rev. Somers states that the communal refuse heap revealed “more of the manner and means of subsistence of these prehistoric people than from all sources of conjecture combined. I obtained 2,000 bones from the refuse heap, forty per cent of which are human, while the remainder are evenly divided among birds, beasts and fishes. The fish bones included pickerel, pike, perch, bullhead, and suckers. Carapaces of turtles were also found. The crushed shells of land snail and fresh water clams were in great abundance.”

The Iroquois, according to Loskiel, carried with them fish hooks and small harpoons when on their hunting expeditions. Two Iroquoian tribes represented in Wisconsin were the Oneida and the Huron (Wyandot).

“The Malhominis (Menomini) live upon game and sturgeon; they are skillful navigators. If the Sauteurs (the French name for the Chippewa) are adroit in catching the whitefish at the Sault, the Malhominis are no less so in spearing the Sturgeon in their river. For this purpose they use only small Canoes, very light, in which they stand upright and, in the middle of the current, spear the Sturgeon.”—from Bacqueville de la Potherie’s “Histoire,” 1640–1660. (Wis. Hist. Coll., vol. XVI).

“Grooved net sinkers are characteristic of the Algonkian. Flat, notched river pebbles also used as sinkers are common to both cultures—Algonkian and Iroquoian. The Algonkians reveled in stonework of every variety, but were poor in fashioning bone and antler, in which the Iroquois excelled. One may expect to find stone articles predominate over those of bone and antler on all Algonkian sites, both in number and quality. Bone fish hooks are exceedingly

scarce on Algonkian sites. Algonkian harpoons resemble Iroquoian forms.”—from “Algonkian Artifacts,” by Alanson Skinner. (Wis. Archeol., v. 19, no. 1).

George H. Loskiel, writing of the Iroquoian tribes, who were represented in Wisconsin by the Oneida and the Huron (Wyandot), states that “the Indians always carried fish hooks and small harpoons with them whenever they are on a hunting party.”

The use of flint perforators as bait-holders is described by Gerard Fowke in “The Mound Builder and Later Indians.” Fowke writes: “Those flint perforators which were double-pointed and slender, may have been used for bait-holders in fishing. The rod, upon which the bait was placed, was made to hang vertically in the water. When swallowed by a fish, a slight jerk released the loop and the bait-holder, assuming a position at right angles to the line, held as firmly as a hook.”

POSSESSION OF FISHING GROUNDS

The possession of desirable fishing grounds was the cause of conflict and of quarrels between some of the early tribes of Wisconsin and occasionally between villages of the same tribe. Thus Albert E. Jenks in his paper on “The Wild Rice Gatherers of the Upper Lakes” mentions that the long continued early struggle between the Dakota and the Chippewa in northern Wisconsin and Michigan was a conflict waged for the possession of the wild rice lakes and fishing grounds of the northern woodlands and lake shores. (19 Bureau of Am. Ethnology).

George R. Fox gives an account obtained from Louis Bernard, a Memonini Indian, of an early quarrel between two Menomini bands encamped on the Menominee river near Marinette over the use of a stone fish dam constructed by one of them in that stream for the purpose of taking sturgeon. (17-2 Wis. Archeologist, 42-45). In south-

eastern Wisconsin where the early fishing and hunting territories of the Potawatomi and Winnebago joined some of the bands were careful about not encroaching on the fishing grounds of others.

STANLEY EDWARDS LATHROP

Stanley Edwards Lathrop of Madison, Wisconsin, a member for many years of the Wisconsin Archeologist Society, passed this life on December 26, 1927. He was eighty-four years of age at the time of his death. Mr. Lathrop was born at Orville, New York, May 7, 1843. In 1854 his father emigrated to Wisconsin, settling at New London. At the age of sixteen Stanley entered the preparatory department of Beloit College. He was a freshman in college when the Civil War broke out. He enlisted in Co. M of the famous First Wisconsin Cavalry and saw active service during that great struggle in nearly every state of the South. Returning to Beloit in the fall of 1865, he was graduated in the class of 1867. In the fall of that year he entered the Chicago Theological Seminary from which he graduated and was ordained in 1870, his first pastorate being at Viroqua, Wisconsin.

Dr. Lathrop's life was a very eventful one. After six years service in Wisconsin he entered the work of the American Missionary Association, laboring faithfully and well in the course of years among the whites and negroes in Georgia and Texas. He then returned to northern Wisconsin where he was engaged in home missionary work. Here he became interested in the "Northern Wisconsin Academy," now Northland College, and eventually became its traveling agent and raised money, books, students and friends for this institution. After many years of devoted service he came at last to make his home at Madison. Here he was able to continue his life-long interest in Wisconsin archeology, history and conservation, being an active member of all of the state societies laboring in those fields. He seldom failed to attend the meetings and pilgrimages of these organizations. At the time of his death he held the

office of state chaplain of the G. A. R. He was widely known and greatly loved. Wisconsin archeologists will ever cherish the memory of Stanley Edwards Lathrop. His enthusiastic and helpful interest in the history and landmarks of the American Indian never failed.

THE GEORGE WASHINGTON INDIAN PEACE MEDAL

The American Numismatic Society, New York has issued a monograph on "Indian Peace Medals Issued in the United States" its author being Bauman L. Belden.

In this publication there is described and illustrated among many others the George Washington Peace Medal of 1789. Concerning this medal the monograph says:

"The origin of these pewter medals is shrouded in doubt. It has been said that they were first made in St. Louis some time between 1845 and 1850. Certain Indians and Indian agents, who had medals to sell have claimed that they have been in the families of the present owners since 1789, but this is not worthy of consideration.

It has also been stated that they were of government origin, but in view of the nearly complete series of government medals, of standardized size and design, this would seem impossible. The style, workmanship and metal should preclude this supposition.

"Whatever the early history of these medals is, if there is any history, the dies have survived and of late years have been extensively used. A letter addressed to the author by Mr. Walter C. Wyman states that in 1901 while visiting the Omaha reservation he encountered at an Indian home an Indian with a "freshly done" Washington medal of the 1889 series." He explains that in his travels on various reservations these medals were offered to him at prices varying from one to twenty dollars. A letter received by Wyman from Joseph A. Lamere of Pender, Nebraska, (October 17, 1901), is printed. In this letter he explains to Wyman that he is the owner of the die of the medal having obtained it from an Indian whose relatives were in the employ of the Interior Department. "I have sold as many

as \$800 worth of these medals among the Poncas of Oklahoma. I commenced selling them at \$15.00 apiece, and later dropped to \$10.00, and never sold them to Indians cheaper. Have sold a few to personal friends among white people for less."

He offered to sell them to Mr. Wyman "at \$2.00 apiece in aluminum, or \$15.00 in silver, in quantities of fifty or more." Needless to say Mr. Wyman did not accept this interesting proposition. He has since ascertained that Mr. Lemere, who is an Indian, is still living, though moved away from Pender some years ago, and that the demand for these medals having been supplied, they have not been issued for some time.

"From another source it has been learned that this Indian formerly made it a practice to attend various Indian gatherings, and with much pomp and ceremony to present one of these medals to each of the most influential chiefs, accepting whatever presents might be tendered in return and thereby accumulated many horses and other articles of value. This custom he carried on until the Indians began to see through the game, and became suspicious of any medal bearing the portrait of Washington."

TEWA TALES

By the publication of her book, "Tewa Firelight Tales", Miss Alice (Ahlee) James has made a notable and very welcome contribution to American Indian folklore. In this book, printed by Longmans, Green and Co., New York, twenty-seven selected tales of the Tewa of the pueblo of San Ildefonso, in northern New Mexico, are retold by the author in such a way as to appeal to the interest of both young and adult lovers of Indian stories. Among this group of characteristic tales of this tribe some bear the inviting titles of "A Tewa Cinderella", "Coyote and Evening Star", "The Fox Sings", "The Singing Spring", "The Parrot Girl", "How the Tewa Tribe Divided", and "When Navajos Stole Tewa Boys". Added interest and charm is given to this book by the illustrations in color by Awa Tsireh and other native artists.

These Tewa tales were collected by Miss James "during three years residence in San Ildefonso. Every story was told by a grown man or woman, some of the tellers being old and wise in the traditions of their people. A few of the stories were obtained from Indians of other pueblos, but all from Tewa people."

"During my first two years with these interesting people I taught in the little Government Indian school near the pueblo, and the last year lived in the pueblo in one of the Indian built adobe houses.

"This collection of stories is called "Firelight Tales" because Indian stories are usually told on winter evenings in the light and warmth of the adobe fireplaces. Tales are not told during spring or summer because that is the time when people are busy out of doors making crops. So in winter, when crops are gathered and laid away, time has come for the relating of tales, singing of songs, and the practice of dances, all of which have come down from ancestors for the enlightenment and entertainment of their children. These things are learned in the light of the piñon fire, and keep alive through the generations knowledge and love of those who have gone before." We hope that many of the friends who read this brief announcement of its appearance will want copies of Miss Alice James' book.

SPONGE DIVERS' CEREMONY

Miss Mary E. Stewart, a member of the Wisconsin Archeological Society, recently wrote to the editor of The Wisconsin Archeologist about an interesting ceremony which she witnessed during a winter's sojourn in Florida.

"Tarpon Springs is headquarters for the sponge industry in the United States, and, some say, the largest sponge market in the world. There is a large block three sides of which are surrounded by a building with small rooms opening to the center of the block in which the sponge fishermen display their goods.

The sponges are classified and there are many varieties and different qualities of these. They are brought to this market by fishermen who outfit here and operate in many

parts of the Atlantic Ocean and Gulf of Mexico. Their boats remain away sometimes as long as six months and return when a sufficient load of sponges has been secured. The divers are almost without exception Greeks. A little church is maintained in which all of the services are conducted in the Greek language. They have one ceremony held once a year, called in common parlance "Throwing the Cross", I witnessed it. A service was held in the church and at its close a procession was formed which marched to a large pool formed in the bay. Priests walk ahead of the procession. They bless the waters of the sea to the divers. A cross about one foot long is thrown far out in the middle of the pool. Many divers in small boats are out even before the cross touches the water, to dive and rescue it. It is supposed to bring very special blessings to the diver who secures it.

The cross is made of wood and gilded. In former years real gold was in use for this purpose. It is returned to the church by the diver who rescued it, and he is here honored by his fellow divers. This Greek church is said to be the only one in the country which keeps up strictly its ancient ceremonials."

ARCHEOLOGICAL NOTES

Meetings

Vice President Charles G. Schoewe presided at the meeting of the Wisconsin Archeological Society held in the Trustee Hall of the Milwaukee Public Museum on the evening of November 21, 1927. There were sixty-five members and guests in attendance.

The program of the meeting consisted of a lecture on "Wisconsin Indian Fishing," by Dr. Herbert W. Kuhm. This was a very excellent presentation of this interesting subject. It was illustrated by a collection of Indian fishing implements kindly loaned for the occasion by the Milwaukee museum. It was discussed by the Messrs. Louis Pierron, C. G. Schoewe, E. F. Richter, and by John Bear and Ulysses White, two Winnebago Indian members of the Society, who were present.

Mr. John Bear gave an interesting talk on the Bear and Wolf Clans of his tribe, his address being interpreted by Mr. White.

Secretary Brown announced the election to membership by the Executive Board of Herbert W. Cornell, and Gustav Marx, Milwaukee; Mary Dunn, Lena, Ill.; H. K. Thurston, Madison; H. J. Knippel, Kilbourn, and Angie Williams Cox Library, Pardeeville. Mr. Henry Damereau, Fairwater, was elected a life member. Governor Fred R. Zimmerman, Dr. Paul B. Jenkins, Williams Bay; Sheldon Bradt, New London; John Bear, Winnebago, Neb., and Dr. W. B. Hinsdale, Ann Arbor, were elected honorary members. The deaths were announced of Jacob Van Orden, Baraboo; Anthony Ballant, Milwaukee, and Charles F. Pfister, Milwaukee.

He reported that a bronze tablet marker had been provided for Aztalan Mound Park. This was to be mounted on a suitable boulder. A wire fence was also to be placed along the road front of the park and additional trees planted within the inclosure. This work was being done under the direction of Mr. Robert P. Ferry. A brief report of some of the field work and other work undertaken during the summer was also made.

At the close of the meeting exhibits of archeological and ethnological specimens were made by the Messrs. Vetel Winn, Kermit Freckman, E. F. Richter, C. G. Schoewe and the Museum.

Past President Dr. S. A. Barrett conducted the meeting of the Society held on Monday evening, December 19, 1927. One hundred and fifty members and guests were in attendance at this meeting, every seat in the Trustee hall of the Milwaukee museum being occupied.

The speaker at this meeting was President George A. West, who was introduced by Dr. S. A. Barrett. The subject of his lecture was "The Antiquities of Egypt." In it he presented an account of a journey recently made to this very interesting country by himself and Mrs. West and during which all of the major ancient monuments and sites were visited. His lecture was illustrated with a fine collection of lantern slides. His large audience were delighted with his lecture. For years President West has given an annual illustrated lecture to the members and friends of the Society.

The meeting of the Society held on Monday evening, January 16, 1928, was directed by President West. Seventy members and visitors were present at this meeting. Mr. Huron H. Smith, noted ethnobotanist and a vice president of the Society, favored the members on this occasion with a fine lecture on "Forest Conservation in Wisconsin."

son." This was as interesting as his lectures before the state society have always been. His numerous colored stereopticon slides were unusually fine. The speaker gave an interesting account of the Indian uses of the forest and of its products in wigwam and canoe construction, in basket and wooden vessel manufacture and in maple sugar making.

Secretary Brown announced the recent deaths of Mrs. Sherburn S. Merrill, Milwaukee, a life member, and of Rev. Stanley S. Lathrop, Madison, for many years a deeply interested member. Also of Mr. N. F. Kaudy, Hot Springs, South Dakota, a former Burnett County member. He reported the election to membership of Dr. Bruce T. Best, Arlington Heights, Illinois.

A letter from Governor Zimmerman acknowledging his election as an honorary member of the Society was read. Exhibits of specimens and other materials were made by T. L. Miller, C. G. Schoewe, T. M. N. Lewis and other members.

The Central Section, American Anthropological Association, will meet at Beloit College, on Friday and Saturday, March 2 and 3. Secretary Geo. R. Fox, Three Oaks, Michigan, hopes to have a fine program for this meeting. All archeologists and ethnologists, and other persons interested, in the Middle West, are cordially invited to attend this meeting.

A meeting of members of the Committee on State Archeological Surveys, National Research Council, of which Dr. Carl E. Guthe, Ann Arbor, is chairman, will meet at Beloit, on Thursday, March 1, the day preceding the Section meeting.

The annual Joint Meeting of the Wisconsin Academy of Arts, Sciences and Letters and the Wisconsin Archeological Society will be held at Lawrence College, Appleton, on April 6 and 7.

The Midwest Museums Conference, Ralph N. Buckstaff, Oshkosh, secretary, will join with the Societies in this year's meeting. All members of the Wisconsin Archeological Society are urged to make plans to attend this joint meeting of the three organizations. All who have papers which they may wish to enter in the program are requested to confer with Secretary Charles E. Brown, Madison.

At a meeting of archeologists and museum officers and friends held at the Chamberlain Memorial Museum, Three Oaks, Michigan, on November 11 and 12, 1927, the Michigan-Indiana Museums Association was organized. Representatives were present at this meeting from museums located at Three Oaks, Ann Arbor, Benton Harbor, Battle Creek, Grand Rapids, Kalamazoo and other places in Michigan, and from La Porte, South Bend and other points in Indiana. Mr. Geo. R. Fox was elected president of the Association. Mr. Charles E. Brown of the State Historical Museum, Madison, Wisconsin, was present and assisted in the organization of the Association.

The Winter Meeting of the Michigan State Archeological Society was held at the new Museum Building at Ann Arbor, on January 18, 1928. At this meeting a fine program of papers was offered. A special exhibit of archeological specimens was made for this meeting in which Michigan collectors participated.

The Mid-West Museums Conference meeting was held at St. Paul and Minneapolis on November 18 and 19, 1927. Meetings were held at the Historical Building, St. Paul, and the Minneapolis Institute of Arts. Visits were made to the Walker Art Galleries and University of Minnesota Zoological Museum.

Indian Sanctuary Camp

The Lake Monona Wild Life Sanctuary Association has held several public meetings at Madison during the winter. One of these, held at the State Historical Museum, was addressed by Dr. A. W. Schorger.

Mr. C. E. Brown has spoken before a number of other Madison organizations in behalf of the Sanctuary. The Association now has about 200 members and subscribers. It is endeavoring to preserve to the Winnebago Indians of Wisconsin as a perpetual camp ground a 22 acre tract of original forest located on the shore of Lake Monona at Madison. This forest also contains a remarkable group of Indian mounds including some of the largest linear mounds in Wisconsin which would thus also be saved to posterity. In a recent issue of *The Wisconsin Archeologist* an appeal was made by Mr. Theodore T. Brown, assistant secretary, to all members of the Wisconsin Archeological Society and to all other friends of the Indian to contribute a dollar or two to the success of this enterprise. Of the members residing outside of Madison only a very few have made any response to this appeal. Surely we have a right to expect some assistance from Wisconsin archeologists?

Groups of Winnebago folk camp in this woodland every year. It is almost the only spot about the Madison lakes where they may still camp without being driven away.

Publications

The January 1928 issue of *Indian Notes*, published by the Museum of the American Indian contains a number of interesting papers, among these "Notes on the Functional Basis of Decoration and the Feather Technique of the Ogalala Sioux", by Frank G. Speck, D. S. Davidson writes of the "Family Hunting Territories of the Waswanipi Indians of Quebec", and Melvin R. Gilmore on "Indian Tribal Lines and Boundaries".

A monograph on "Arrow Release Distribution" by A. L. Kroeber is published by the University of California. This is an excellent study of this very interesting subject. A map shows the distribution in the world of the five recognized styles of arrow release. Fred B. Kniffen presents in another bulletin a study of "Achomawi Geography." "The object of this paper is the reconstruction of the picture presented by the Pit River Indians of California—the Achomawi and Atsugewi—and their habitat and occupied sites before the coming of the whites".

No. 34, 1927, of the *Memoirs of the American Anthropological Association* bears the title "Archeological Explorations on the Middle Chinbe, 1925". It is devoted to an account by Noel Morss of explorations conducted in northern Arizona. This region "was occupied in the earliest times by Basket Makers of a culture identical with that found elsewhere. The Post-Basket Makers did not inhabit this district to any great extent. The pre-Pueblos then occupied the country and dwelt chiefly in slab houses in the open."

No. 35 bears the title, "The Northern and Southern Affiliations of Antillean Culture", the author being Charlotte D. Gower. This is a very helpful study of the aboriginal populations of the West Indies, their archeology and material culture, and a comparison of this culture with that of South America.

"Museum Echoes" published by the Ohio State Museum (The Ohio State Archeological and Historical Society), issue of February 1, 1928, announces the death of Director Dr. William C. Mills, on January 17, 1928, at University Hospital, Columbus, Ohio. Dr. Mills had been in poor health, for several years preceding his death. His demise will be greatly regretted by every archeologist and historian in the Middle West. His achievements during the past twenty years and more have been great and have been an inspiration to all workers in the field of American archeological history. It was a great privilege to have known Dr. William C. Mills. His activity and hospitality during the recent meeting at Columbus of the Central Section, American Anthropological Association, will never be forgotten by those members who were in attendance.

"Acoma, the Sky City" is the title of a book by Mrs. William T. Sedgwick, and published by the Harvard University Press, Cambridge, Massachusetts. This book has received excellent press notices. "The Pueblo culture is rapidly vanishing, and Mrs. Sedgwick's endeavor to provide as complete a picture as possible of the story and life of a representative community is very praiseworthy."

There recently made its appearance a "Manual for Small Museums", Laurence Vail Coleman, Executive Secretary of the American Association of Museums, being its author. "This book is intended for the use of those who set about to found museums or to build up small museums now existing. The writing of it has been prompted by observation of the rapid growth of interest in museum-making and the hindrance or defeat of many efforts through lack of information. "Publishers G. P. Putnam's Sons, New York. Cost \$5.00 per copy.

The November 5, 1927 issue of The Literary Digest contains an article on "A 'Lost Art' That Was Never Lost". "The Hardening of Copper, as practiced by the ancients, often spoken of as a 'lost art'," and so spoken of by Wendell Phillips in his celebrated lecture, was never so in reality, declares William G. Schneider, a New York mining engineer, in a research report to the Engineering Foundation:

"Many persons spend a lifetime trying to discover an art that was never lost. The tragedy occurs when they have evolved a hard copper. They next endeavor to find some use for it and then learn that, unless it has some special properties, no market exists." Etc.

The University of Michigan has printed a "Report of the Associate-Director of The Museum of Anthropology to the Board of Regents." This contains information about the accessions, of the indoor and fieldwork of the museum staff which consists in addition to Dr. Carl E. Guthe, of Dr. W. B. Hinsdale, Dr. Greenman, Miss Dorothy Myers and others. Part II of this Report contains an interesting paper on "The Archaeology of the Amazon" by J. B. Steere.

Charles E. Brown, who published during the spring of 1927 a guide book, "Scenic and Historic Wisconsin," and for which there has been a wide demand, is preparing a similar guide book to bear the title, "Scenic and Historic Northern Illinois". These booklets do much to increase the popular interest in historic and scenic landmarks and to encourage their preservation.

Theodore T. Brown has published during the winter months in The Wisconsin Agriculturist and other agricultural and out-door journals articles on Indian agriculture and allied subjects which have been widely read and appreciated.

Miscellaneous

The Chamberlain Memorial Museum, Three Oaks, Michigan, is engaged in removing its large historical and natural history collections from the several detached buildings which it formerly occupied to a large three-story building formerly occupied by the Warren Featherbone Company. This marks a decided advance in the history of the development of this museum already widely known as one of the richest and most active museums of its class in the country. Mr. Carl F. Richter of Oconto, Wisconsin, has recently joined Director George R. Fox as his assistant.

We learn through others that Mr. Alonzo W. Pond of Janesville, widely known for his connection with the recent explorations of the Logan Museum, Beloit College, of prehistoric sites in France and Algiers, is to become a member of an expedition to be conducted to the interior of China by Roy Chapman Andrews.

Dr. George L. Collie spoke on "Men of the Aurignacian Age and Their Culture" at a meeting recently held by the Chicago Society of the Archaeological Institute of America at the residence of Mr. and Mrs. Frank G. Logan, in Chicago.

At Neenah the old Governor Doty log cabin has been removed from its former site to the city park and is in use as a museum. The Green Bay Public museum has taken possession of its new municipal museum building. The historical museum at Baraboo has been crowded out of its former quarters in the county court house. Its valuable collections have been placed in storage because of the failure of the city council to provide other quarters. At Clintonville a museum containing manuscripts, books and other personal belongings of Eben E. Rexford has been installed in several rooms in the public library building. A new museum is reported as in existence at Neillesville.

During the past summer the Geneva Lake Historical Society was organized at Williams Bay. This new society, of which Dr. Paul B. Jenkins has been the leading moving spirit, has erected at Fontana at the western end of this beautiful southern Wisconsin lake, four fine bronze markers all mounted on boulders. Two of these mark the course of the old Chicago to Mississippi River trail, and two stand on the site of the noted Potawatomi chief Big Foot's village of 1831-33. These were unveiled with impressive ceremonies on the afternoon of July 28.

In the public library at Williams Bay is a case of Indian implements and some historical specimens, the nucleus of a future museum.

On August 14 and 15 a meeting of the Door County Historical Society was held at Ephraim. During this meeting an Indian "totem pole" was erected. A group of Forest County Potawatomi were present and helped to entertain the large number of persons who attended.

In coöperation with the archeological survey the Milwaukee Public museum excavated during the past summer two groups of Indian mounds, one located at the Black River, near Sheboygan, and the other near Juneau, in Dodge County. Mr. Charles E. Brown and Mr. Theodore Brown conducted an archeological survey of the Lake Geneva and Lake Como regions in Walworth County. Several mounds were excavated. The first photograph of an effigy mound

ever taken from an airplane was secured by Charles W. Beemer. This mound, a huge panther, is located five miles south of Burlington in Kenosha County.

The Oregon Trail Memorial Association, Inc., whose offices are at 95 Madison Avenue, New York, is raising by contributions a fund for the erection of monuments and markers to designate the course of the famous Oregon Trail. Hon. Ezra Meeker, of Puyallup, Washington, great pioneer and patriot, now in his eightieth year, is president of the Association. This celebrated and historic trail extended from the Missouri River to Puget Sound. In the years from 1843 to 1852 more than 300,000 people and 5,000,000 head of stock passed over it. The pioneers that went over this trail saved the Oregon country to this Nation. To assist the Association the United States government has issued memorial coins. These are being sold by the Association at \$1.00 each.

The Wisconsin Archeologist

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NEW SERIES

No. 3

LAKE GENEVA AND LAKE COMO



PUBLISHED QUARTERLY BY THE
WISCONSIN ARCHEOLOGICAL SOCIETY
MILWAUKEE

Wisconsin Archeological Society

Milwaukee, Wis.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities

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These are held in the Trustee Room in the Public Museum Building, in Milwaukee.

During the months of July to October no meetings are held.

MEMBERSHIP FEES

Life Members, \$25.00

Sustaining Members, \$5.00

Annual Members, \$2.00

Junior Members, \$.50

Institutional Members, \$1.50

All communications in regard to the Wisconsin Archeological Society or to the "Wisconsin Archeologist" should be addressed to Charles E. Brown, Secretary and Curator, Office, State Historical Museum, Madison, Wisconsin. G. M. Thorne, Treasurer, National Bank of Commerce, Milwaukee.

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BIG FOOT VILLAGE MARKER

Erected by the Geneva Lake Historical Society
at Fontana, Wisconsin.

The Wisconsin Archeologist

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MADISON, WIS., APRIL, 1928

No. 3

New Series

LAKE GENEVA AND LAKE COMO

Charles E. Brown and Theodore T. Brown

LAKE GENEVA

Lake Geneva, located near the southern boundary of Walworth County, in the southeastern part of the state, is quite generally conceded to be the most beautiful of all of the lakes of southern Wisconsin. Of these fine lakes it is the third largest and the second in the depth of its clear waters. Its shores are almost completely framed by a rim of high verdure-clad slopes. The beauty of its surroundings has earned for this gem of lakes its national reputation as a summer resort. On its shores are many fine estates and beautiful homes. Its numerous springs and brooks are crystal-clear.

Many thousands of persons visit Lake Geneva every year to enjoy the beauty of its scenery both natural and landscaped. The architecturally attractive Yerkes Observatory, the great Y. M. C. A. College Camp, and the interesting Northwestern Military and Naval Academy draw many visitors. One city and two villages occupy places on its shores, the City of Lake Geneva at its eastern end, the village of Fontana at its western end, and the village of Williams Bay, on its northern shore on a bay of the same name.

"The lake is long and narrow, the narrowest part being located about one-third of the length from the east end. The outline is fairly regular; Williams Bay, situated on the north side toward the west end, is the only prominent extension from the main body of water. In most places along the western two-thirds the water descends rapidly to a depth of 30 m. (100 ft.) or more. Along a great portion of the northern shore of the eastern third, the offshore is

steep also. The gentlest bottom slopes are found at the head of Williams Bay and at the two ends of the lake. The steepest slope is situated off Black Point where it is about 1 to 3.5, or nearly 30 per cent between the surface and 35 m."

"The shores of Lake Geneva are characterized by their steepness and by the very small area of swamp and marsh. With the exception of two or three relatively narrow stretches they rise rapidly to a height of 30 m. to 40 m. (100 to 130 ft.) or more above the lake, forming an almost complete rim of high, wooded slopes. Previous to 1836, the outlet had cut down through the dam of drift at the east end to a depth of 2 m. and lowered the level of the lake by this amount, but an artificial dam was erected in that year which raised the level to its original height and it is still maintained at this point by a dam."

"Lake Geneva receives its supply of water from a large number of springs located on its shores and from several small spring-fed streams. The village of Fontana at the west end of the lake receives its name from the numerous springs found in this locality. The volume of water derived from one small group of these springs is sufficient to furnish 15 horse power to a mill. The water supply of the village is derived from another group of springs. The waters of these and many other springs unite to form the small stream [Fontana Creek] which enters the western end of the lake. White river is the outlet of Lake Geneva. It emerges from Geneva Bay and flows northeastward to join the Fox river of the Mississippi system."

"The basin of the lake seems to owe its origin to three factors, stream erosion and the work of two separate glacial epochs. A preglacial Geneva valley was formed by a stream which apparently flowed westward at this point. The ice of the earliest Wisconsin epoch moved down this valley, forming a ridge of terminal moraine at the western end of the present lake. During the next ice invasion, a small lobe, known as the Delavan lobe, lying between the Green Bay and Michigan glaciers, reached this region and in the vicinity of Lake Geneva moved almost south. This lobe built the high terminal moraine (the Darien moraine) which borders the lake on the south side and curves north-

ward toward the ends. Then the ice front retreated northward from 6 km. to 10km. (4 m. to 6 m.) where another ridge, the Elkhorn terminal moraine, was formed, leaving the basin of Lake Geneva unfilled. In just what manner the basin escaped being filled either during or subsequent to the retreat of the ice front is not clearly evident. With the exception of the gravel terrace on which the city of Lake Geneva stands, the topography of the shores does not show the characteristics of a basin preserved by a block of ice.”*

The length of Lake Geneva is given as 7.5 miles. The greatest width of its eastern part, midway between the Narrows and Geneva Bay, is $1\frac{1}{2}$ miles, of its central part, midway between the Narrows and Black Point, about 1 mile, and of its western third, between the south shore and the head of Williams Bay, about 2 miles. The circumference of the lake is 18 miles. Its greatest depth is 142 feet.

In his very interesting book, “The Book of Lake Geneva,” published in 1922, Dr. Paul B. Jenkins has given much additional information about the geology of Lake Geneva which those who receive this report on the archeological history of the lake will do well to read.

LAKE COMO

A brief description of this lake is given in The “Inland Lakes of Wisconsin”: “Lake Como lies about 3 km. (about 2 mi.) north of Lake Geneva and it occupies a shallow basin in a longitudinal trough in the Elkhorn moraine. The floor of Lake Como is level and the maximum depth of the water is about 2 m. (6.5 ft.). It is filled by a dense growth of aquatic plants in summer. Its surplus waters are discharged into White river.”

The lake was described in 1882 as three miles long and averaging half a mile wide. It lies entirely in Geneva Township of Walworth County.

Como is a large and narrow lake slightly bowed. Its eastern end is about two miles and its western end five-sixths of a mile north of Lake Geneva. Its shoreline lacks

*The Inland Lakes of Wisconsin, 65-67.

the prominent bays and points of its sister lake. It is the "homely sister" of the Geneva-Delavan-Como Lake family. Beyond its present eastern end there was formerly an extensive marshy area, now largely drained and in use as truck farms. On its north shore and on its south shore this marsh extends nearly half the length of the lake. There is a marshy area also at the western end of the lake. Como Creek, the outlet of the lake, runs northeasterly through Section 24 and empties into the White River in Lyons Township.

A tributary stream flows into Como Creek from the north uniting with it in the SW. $\frac{1}{4}$ of Section 23, northeast of the lake. Marshy areas lie along the course of both creeks near the lake. Two creeks flow into the lake at its western end. Fully half the bed of the lake is occupied by reeds and other aquatic plants.

As the physical characteristics of the land on the north and south shores of Lake Como are described in connection with the archeological sites on those shores only additional information is offered here.

Lake Como Highlands and Como Beach, adjoining it on the west, both on the north shore of the lake, occupy a range of high bluffs largely covered with a fine forest. The land at the foot of the bluffs is more or less level, sloping toward the lake shore. Both extensive properties have been platted and improved for summer resort purposes, with many cottage homes already erected. From the Highlands across the reed beds a fine view of the woodlands and farms on the south shore is obtained. This subdivision was covered with a growth of tall grass and wild plants with a fine oak woodland in about its middle making a search for archeological evidence well nigh impossible. At Como Beach the land is rather flat for a distance of several city blocks inland from the lake shore, then rising to the high, wooded hills behind. Here also there was no opportunity for surface investigations. Doubtless evidence of former Indian camp sites is hidden there beneath the tall grass and plants. Opposite this subdivision the surface of the lake is free from aquatic plant growths.

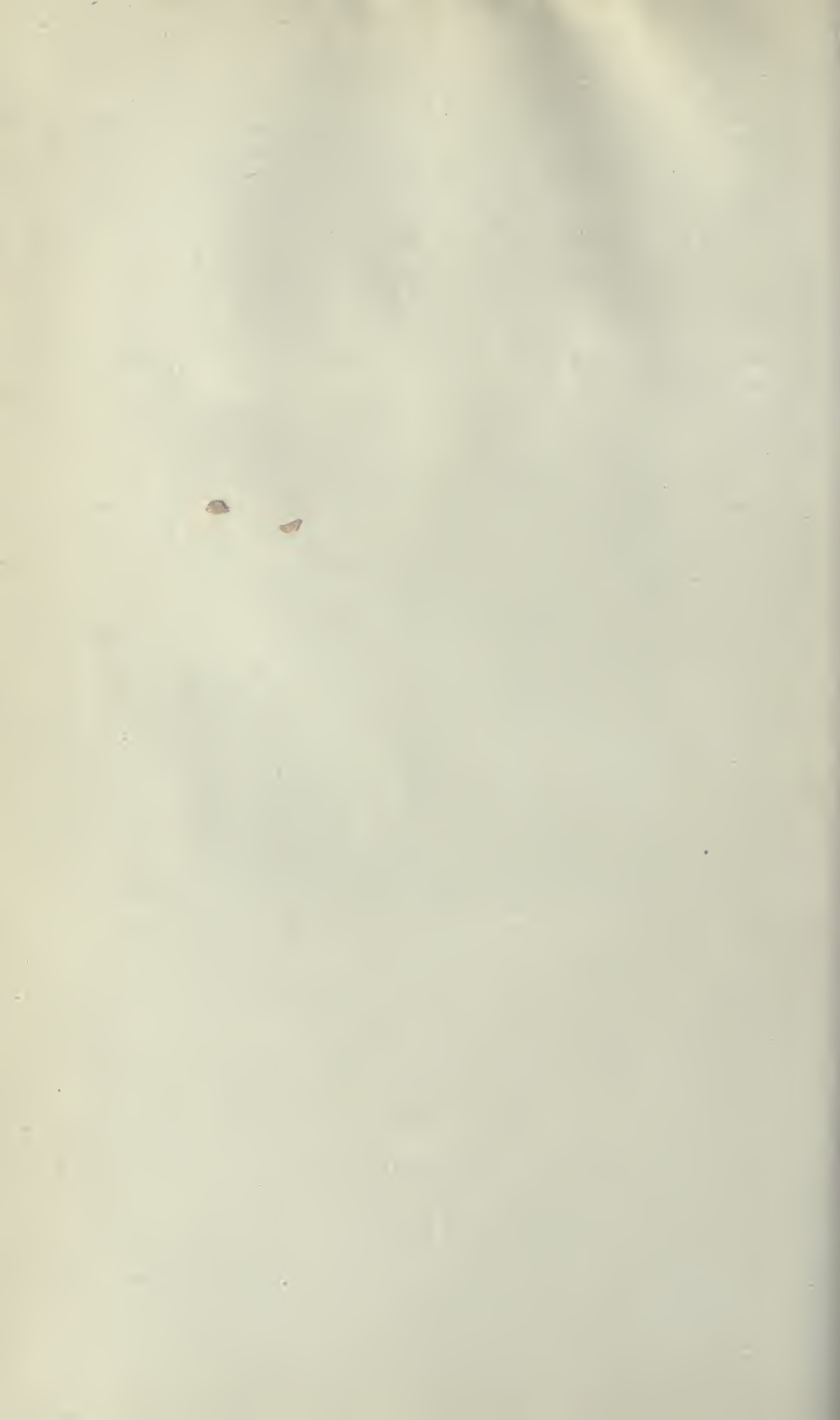
From Como Beach westward the wooded bluffs extend to the western end of the lake. Here also are level, sloping



CHIEF SIMON KAHQUADOS AND "TOM"
WILLIAMS. GRANDPARENTS OF BOTH WERE
WILLIAMS BAY POTAWATOMI.

Blackwell, Forest County Wisconsin

Plate 1



fields between the lake shore and the hills. Most of these fields are, however, under cultivation.

There are five fine springs on the part of the Crane Farms lying north of the west end of the lake. Here the highlands approach closer to the margin of the lake and marsh. The land is of a rougher character and is covered with a fine woodland.

On the south shore of Lake Como, north of the junction of the Lake Geneva to Williams Bay highway and Highway 50, is a tract of elevated pasture the bank of which slopes down to the shore of the lake marsh. Because of the undisturbed condition of the soil surface no indications of former Indian residence were found here. At the western end of this pasture, at the base of the slope is a spring. This pasture is a very favorable location for an Indian camp and evidence of this is almost certain to be found when this land is plowed. From this point eastward the Krause and Kelly farms are rather level lakeshore fields with highlands in their rear.

Beyond the eastern limit of the cultivated fields of the S. B. Chapin Lake Como Farm there is a fine maple forest. Beyond this is a grassy pasture field, and beyond this another woodland with a small stand of young walnut trees at its western edge. Beyond this is another pasture field running through which is a creek bed, dry in the summer. From this point another fine woodland extends eastward to the eastern end of the lake. The Lake Geneva to Williams Bay line of the C. & N. W. R. R. runs along the south shore of Lake Como. Extending east and west from Como Station on this shore of the lake are a line of small hotels and summer resort cottages.

THE PRAIRIE POTAWATOMI

The early Indian inhabitants of the Geneva lakelands and of surrounding parts of Walworth County were the Potawatomi, an Algonkian tribe whose ancestral home, both archeological and historical evidence appears to indicate, was in central New York. From this same general region the other early Wisconsin tribes of this great Indian stock probably also came. This homeland they aband-

oned because of the warfare waged against their villages by their warlike and powerful neighbors the confederated Iroquois. In 1861 the Potawatomi in seeking refuge from these onslaughts of their enemies had occupied a district east or northeast of the shores of Lake Huron. They were then moving or preparing to move further westward. Within a few years at least some must have reached the opposite shore of the lake in Michigan. Twenty-six years later, in 1687, Father Allouez found a Potawatomi village, having a strength of 300 warriors, on the shore of Chequamegon Bay, Lake Superior. They had made the crossing at the Sault, probably in company with some of their relatives, the migrating Chippewa and Ottawa. In 1670 a part of these Forest Potawatomi were established on the Potawatomi Islands at the head of the Green Bay peninsula. During these and later years other Potawatomi bands were moving southward from Lake Huron into southern Michigan and across the border into Indiana. In these regions the strength of the different bands increased. After the destruction of the Illinois in the war of extermination waged against them by the Sauk, Fox, Kickapoo and Potawatomi, the Potawatomi moved into the prairie region of Illinois, there dispossessing, despite their protests, surviving Miami and Peoria. By the beginning of the 19th Century the Potawatomi were in possession of the country about the head of Lake Michigan from the present site of Chicago northward to Milwaukee, and very likely beyond that point.

The Potawatomi of this region were members of the southern division of that numerous tribe, known as Mascouten or Prairie Potawatomi. Their early villages were located at Milwaukee, Waukesha, Mukwanago, Pewaukee, Muskego, Lake Koshkonong, Racine, Kenosha, Burlington, Lake Geneva and Chicago. North of Milwaukee they probably occupied the Potawatomi villages at Waubeka, Oostburg (Cedar Grove) and Black River near Sheboygan, and other points in these Lake shore counties, here with some admixture with the northern Potawatomi who had moved southward from their villages in Door County and occupied desirable fishing and hunting regions.

In the Lake Geneva Region and elsewhere in the extreme southeastern corner of Wisconsin these Prairie Potawatomi

were occupying a region previously occupied by the Illinois (possibly the Miami), and before them by the Winnebago, a Siouan tribe. The later have a tradition of an early residence by one of their bands in the Lake region.

In the Handbook of American Indians an interesting account of the Potawatomi and of the Mascouten is given. P. V. Lawson has*, in his monograph, *The Potawatomi*, compiled an excellent history of all of the Potawatomi bands of the Middle West, and Alanson Skinner in his two bulletins† has furnished much-desired information of the social life, ceremonies and folklore of the Mascouten.

The Mascouten Potawatomi have been known from a very early day. Champlain mentions them in 1616 as being located south of Lake Huron. The Ottawa were then at war with them. In the years between then and 1712 they were occasionally at war with the Ottawa and other tribes. In that year they and the Foxes were attacked by the Potawatomi and other northern tribes at the siege of Detroit, the latter killing "nearly a thousand of them."

One Mascoutin band appears to have found its way quite far north in southern Wisconsin in an early day. In 1669 Nicolas Perrot found a Mascoutin village on the Fox River in Wisconsin. Near them were villages of their associates, the Kickapoo and Miami. They were visited again by Allouez in 1670, and by Marquette in 1673, both in their villages near the Fox-Wisconsin portage. Some are also reported to have been at Milwaukee with some of the Fox before 1712. It is difficult to account for the presence in Wisconsin of these early arrivals three-fourths of a century before the establishment of the Prairie Potawatomi villages in southeastern Wisconsin.

Skinner notes that "there is, and has apparently been for a long time, a considerable difference in language and general ethnology between those remnants of the Potawatomi who reside in the forests of northern Wisconsin, Michigan and southern Ontario and the bands which make up the Mascouten or Prairie division.

The Forest Potawatomi have "an archaic, simple, non-intensive Algonkian culture, closely related to that of the

*19-2 Wis. Archeologist.

†Bulls., Milw. Pub. Museum.

northern Ojibway and Cree. Their social organization is not so complex, their art is not highly developed and their manufactures far ruder than those of the Prairie band." "There has always been some intermarriage between the two, yet they regard each other as separate and both divisions feel that the interests of the Potawatomi lie rather with their old time associates, the Ottawa, Ojibwa, and, to a lesser extent, the Menomini, than with the Mascoutens."

Of the several Mascouten bands resident about the southern end of Lake Michigan the Muskodäniûk, or Prairie Band, were at Chicago and their camps and villages are said to have extended north as least as far as Milwaukee; the Shishipani', or Duck Band, were about Chicago; the Känwa' tho, or Panther Band, were at Milwaukee and the Muskigwä''ni', or Sunfish Band, were about the Muskego Lakes. Other bands were in Indiana, southern Michigan and Canada.

The Prairie Potawatomi were organized in twenty-three clans or gens these being grouped in seven phratries. These gens were the Fish, Great Sea, Thunderbird, Bald Eagle, Black Eagle, Duck Hawk, Raven, Sea Gull, Loon, Turkey, Buffalo, Moose, Elk, Deer, Bear, Grizzly Bear, White Rabbit, Wolf, Dog, Fox, Racoon, Man and Warrior. The tribal chief had both civil and military powers. He appointed a ceremonial chief who conducted all of the tribal ceremonies. Each chief had from four to eight braves as attendants. First among their deities was the Great Spirit, others being Fire, the Sun, and the Sea or Water. There were also gods of the Four Directions. They had many other gods among these being the Thunderbirds and the great horned Water-panther.'

Warriors who displayed valor in battle were allotted coups or war counts. These gave to the warrior the honorary title of Wäta' säo, or "Brave". Those who earned a title had the right to change their names and to wear an eagle feather in token of each exploit. They never scalped the whole head of an enemy, taking only a small part of the hair at the crown of the head. Prisoners were often tied with cords from the war bundles. They were sometimes taken outside the village and allowed to escape. They were

sometimes killed during the victory dance, or tied to a stake and shot to death with arrows.

Among other games they played lacrosse, ice arrow, woman's shinny, the pin and bone game, the mocassin game and the dice game. The various clans had several methods of interring their dead. Members of the Eagle clan sewed their dead in rawhide and placed them on scaffolds, or in the branches of trees. The Bear Clan buried its dead in brush or undergrowth, the Thunder clan on top of a hill, the Ocean clan members on the banks of streams or lakes, and the Fox and Wolf clan on the open prairie.

Each clan possessed a sacred bundle containing objects sacred to its members. Each clan had its own bundle ritual.

There are about 460 Potawatomi in the woods of northern Wisconsin, their agency being at Laona. Some are located about or near Blackwell, Planet, Carter, Star Lake, Phlox, Wausaukee and Minocqua. A few of these are descendants of Lake Geneva and other Prairie Potawatomi. Most are of mixed blood being intermarried with Chippewa and Ottawa.

Located chiefly at Skunk Hill, near Arpin, in Wood County, are a band of Prairie Potawatomi, many of whom are Indians returned from the Reservation at Mayetta, Kansas. In 1920 P. V. Lawson reported their number to be about 150. There were then 777 on the Mayetta reservation, 2284 on the Shawnee reservation in Oklahoma, and 14 on the Ponca reservation at White Eagle. 300 were still in lower Michigan and 3000 in Canada. The total of the Potawatomi (Forest and Prairie) was in 1920, 6731.

James Simmonds, an early settler, in his "Annals of Lake Geneva" states that the first settlers (1836) found a band of about 500 Potawatomi at Lake Geneva. These Indians resided in three villages located on the present sites of Fontana, Williams Bay and Lake Geneva. Doubtless there were camps in other localities about Lake Geneva and also on Lake Como.

Big Foot, whose Indian name was "Maunk-suck", or "Maun-guh-zet" or "Ma'-man-gi-side" (as given today by some of his relatives in northern Wisconsin) was the chief

of the villages at Fontana and Williams Bay. A description of Big Foot is given in the chapter following.

Dr. Jenkins describes the life of the Lake Geneva Potawatomi. From his book the following information is obtained:*

"The more or less permanent lodges were built of arched poles, the sides being formed of woven grass or reed mats, the roof consisting usually of large slabs of bark. Within these circular, domed wigwams there was, of course, the central fireplace, with stout sticks driven on each side of the fire, to support the family kettle. The earthen floor was covered with other mats and the walls hung with skins, furs, domestic implements, and the warriors's arms and treasures. The more pretentious lodges had low benches around the sides, made of poles laid side by side on supports, serving as seats by day and couches by night.

"Food and shelter were alike unlimited and easily available. The unbroken forests as literally swarmed with game and fur-bearing animals as the Lake abounded in fish and water fowl. The soil was everywhere conducive to the growth of the rude gardens which the squaws of the settlements planted with corn, beans, squashes and tobacco. The everywhere present hard-maple trees offered each spring an unlimited amount of sweet sap which the toiling women converted successfully, if crudely, into vast supplies of coarse sugar. A common and favorite food was prepared by gathering their corn when "in the milk", and steaming the unhusked ears in pits, dug in the earth, first heated by hot stones, then the stones removed and the corn piled in and covered with earth. When considered "done", the ears were removed and husked, the kernels shelled off and roasted, and when dried were packed in skin bags for preservation, forming a large part of the winter's food supply. This dried corn was also relished by the whites, who often traded with the Indians for it. Many roots and tubers, especially of marsh and swamp-growing plants, were gathered for food, as were, of course, the immense quantities of nuts and wild plums, berries, grapes, and cherries of many localities. Many of these were rudely dried

*The Book of Lake Geneva, 17-21.

or otherwise preserved by the squaws for use during the winter, although in ways that would hardly appeal to a more epicurean taste, as in the case of wild cherries, which were vigorously pounded to crush the stones, when the resultant mass was pressed into cakes and dried in the sun—and eventually eaten, crushed stones and all.”

The Lake Geneva Potawatomi used dugout canoes, which were made of basswood and a few of walnut logs. They had a few horses. There being no local trader they carried their furs and skins to the Solomon Juneau trading post at Milwaukee, to the Kinzie trading post at Fort Dearborn at Chicago, and possibly to the traders at Lake Koshkonong. Here they received in exchange, cloth, blankets, tools, jewelry and guns.

At a treaty held at Chicago on September 26th and 27th, 1833, the Potawatomi ceded to the United States all of their remaining lands in Michigan and Wisconsin. Those residing in Wisconsin were allowed to remain for three years before removing to the reservation provided for them on the Missouri River in Iowa. In 1846 they ceded these lands for a reservation in Kansas. The Lake Geneva Potawatomi were among the last to be removed. They left the site of their villages here in the fall of 1836. Lawson states that of the Potawatomi in the two states, Wisconsin and Michigan, 4,500 fled to Canada, and about 1,000 remained in Wisconsin.

CHIEF BIG FOOT

Big Foot, whose Potawatomi Indian name was “Maunk-suck”, or “Maun-guh-zet”, the chief of the Potawatomi villages at Fontana and Williams Bay, was described by Mrs. John H. Kinzie as a “large, raw-boned, ugly Indian with a face bloated by intemperance,” and “with a sinister and unpleasant expression”. His headdress was “a gay colored handkerchief.”

He was not friendly to the United States government. In 1827, when the Potawatomi bands were at Fort Dearborn at Chicago receiving their annuities, “he secretly circulated the war wampum, but it was not accepted by the coun-

cil of chiefs and braves.”* This was at the time of the so-called Winnebago War of 1827. “In the summer of that year, the Winnebagoes of Wisconsin were in a mood for war, as a result of many dishonesties and outrages suffered by their people at the hands of brutal characters along the frontier. Their messengers had secretly reached many villages and tribes with announcements of the contemplated uprising and exhortations to the warriors to join in the extermination of the encroaching whites.”†

It was to Big Foot at his Fontana village that Dr. Walcott, the United States Indian agent at Chicago, dispatched as secret agents the Potawatomi chiefs Shabbona (Shaubena) and Billy Caldwell (Sauganash) to use their endeavors to prevent his joining with the Winnebago in their warlike preparations. They were successful in their mission and thus doubtless saved many lives.*

The assistance of Big Foot and his warriors was desired by the Sauk chief Black Hawk in the Black Hawk War in 1832. His participation was, however, prevented by the attitude of the other Potawatomi chiefs, who were averse to taking any part in this proposed raid on the white settlements.

It was with great regret that Big Foot left his villages and hunting grounds at Lake Geneva at the time of the removal of the local Potawatomi in 1836. Dr. Jenkins thus describes his leave-taking:

“The hour of their departure from the Lake has been described by the few early settlers, who looked on while the chief visited for the last time the resting-place of his wives beside Williams Bay. Turning away with tears in eyes little accustomed to any tenderness, he commended the spot to Israel Williams, the first white resident of the neighborhood, whose name has been perpetuated in that of the beautiful bay and its little village, and with whom Big Foot had established relations of friendliness. From here “Maunk-suck” returned to his lodge at Fontana, where he stood with an arm about his “council pole,” emblem of his primitive and now passing rule of all he surveyed. Here

*The Potawatomi, Wis. Archeo., 19-2.

†The Book of Lake Geneva, 22.

he looked long and for the last time out over the waters of the lake, finally turning away to go to the nearby log cabin of James Van Slyke, the first white settler of the township, with whose wife, widely known as a dauntless and resourceful type of frontierswoman, he was on friendly terms. The Van Slyke claim covered a large part of what is now Fontana. Bidding this white woman friend of himself and his people an impressive farewell, the next day he led his followers on their long journey toward the setting sun.”*

Mr. Nicholas Trombla, one of the oldest of the Potawatomi now living in Oklahoma, was interviewed at our request by A. W. Leach, superintendent of the Indian Agency at Shawnee, Oklahoma. He stated that he knew Big Foot, who was “a large man, rather coarse featured,” very well. That he died and was buried in the Catholic cemetery at St. Marys, Kansas. He did not know to what Potawatomi clan the old chief had belonged. He thought that all of his descendants had remained in Kansas.

In October 1927 with Dr. Jenkins we went to Blackwell, Forest County, at the invitation of Chief Simon Kahquados to meet some of Big Foot’s descendants. These were George Waubunim (Wau-bun-mah-in-gun), White Wolf, his grand-nephew. His father’s name was Pa-do-go-shik. Tom Williams,—Ke-way-on-quo-tuk or Turning Cloud, was his mother. His grandmother was Ke-she-o-quay or Dawn Woman; his grandfather was Pay-she-un-quet or One Cloud. Billy Thunder, a descendant of Big Foot. His name is Miti-gwak-ing, In a Forest. Simon Kaquados’ mother, Wa-we-a-kan-i-go-que, “All Around the World”, lived in the Williams Bay village. Waubunin is a member of the Wolf clan, and Williams of the Bullhead clan.

Big Foot was thought to have been a member of the Wolf clan. Since this visit we have been in correspondence with some other descendants of the Lake Geneva Potawatomi and with descendants of other Mascoutin Indians.

*The Book of Lake Geneva, 37.

INDIAN TRAILS

A number of important Indian trails passed through the Lake Geneva region. Other trails of minor importance connected the different Indian camp and village sites about Lakes Geneva and Como. Of the former all were deeply trodden, almost like shallow trenches in places. They had been traveled by the Indians for centuries. The courses of some of these are preserved on the State Land Office maps and other records.

Lake Geneva-Mukwonago Trail. On the State Land Office map of the Lake Geneva region a trail is shown as leading from the White River at the site of the present city of Lake Geneva in a northwesterly direction to Como Creek at the head of the Lake Como marsh. To reach this creek crossing it traversed the NW $\frac{1}{4}$ of Section 36, the southwest corner of Section 25, the northwest corner of Section 26, and the southeast corner of Section 23, in Geneva Township. From the Creek it ran in a northeasterly direction through Sections 24, 13, 12 and 1 of Geneva Township. This is probably the trail known as "the army trail", it being the route followed by a body of soldiers on their march from Fort Dearborn at Chicago to Fort Howard at Green Bay, in 1836. Beyond the Geneva Lakes this trail ran in a northerly direction through the townships of La Fayette and East Troy to the Potawatomi Indian village at Mukwonago.

Lake Geneva-Lake Michigan Trail. In the SW $\frac{1}{4}$ of Section 25 of Geneva Township, between the heads of Lakes Como and Geneva, a trail left the foregoing trail passing in northeasterly direction across the section to its northeast corner and through the southeast corner of Section 24. This is very probably the trail mentioned as starting "from the foot of Geneva Lake through Spring Prairie and easterly to Lake Michigan."* It probably went by the way of Burlington to Waukesha and eastward to Racine. The course is shown on some Wisconsin Territory maps of 1835.

Lake Como-Williams Bay-Fontana Trail. On the north side of Como Creek in the SE $\frac{1}{4}$ of Section 23 of Geneva

*West. Hist. Co., Hist. of Wauk. Co., 315.





LAKE REGION.
The text figures.



ARCHEOLOGIC MAP OF THE
The numbers correspond
Plate 1



Township, a trail left the Lake Geneva-Mukwonago trail and ran in a general southwesterly direction along the north side of Lake Como. It passed the head of the Williams Bay marsh and continued in a southwesterly direction to the site of Big Foot's Potawatomi village at Fontana.

Fontana-Beloit-Galena Trail. From Fontana this trail pursued a southwesterly course through Sections 15 and 22, then westerly through Sections 21, 29 and 30 of Walworth Township. It continued to the site of the former Winnebago Village of Turtle at Beloit on the Rock River, 24 miles distant. From that point it ran westward to Galena on the Mississippi River.†

About one-half mile southwest of the Fontana marsh, in the northeast corner of Section 22, this trail forked, the east fork running south through Sections 27 and 34 of Walworth to Big Foot prairie.

Williams Bay-Mukwonago Trail. North of Williams Bay a trail from the northeast united with the Lake Como-Williams Bay-Fontana trail. This trail passed diagonally through Section 30 and reached the Williams Bay marsh in the northwest corner of Section 31 of Geneva Township. This trail ran from Williams Bay marsh across Elkhorn and Spring Prairies to Mukwonago. It is reported to have been a deep trail visible for many years until broken by the plow.*

Fontana-Conference Point-Williams Bay Trail. Near the center of Section 11 of Walworth Township a trail left the Lake Como-Williams Bay-Fontana trail and ran in a northeasterly and easterly direction to Conference Point, then north to Williams Bay village. According to the State Land Office map its course was over the highlands rather than the Lake Geneva shore.

Lake Geneva-Delavan Lake Trail. A trail which is on Wisconsin Territory maps of 1835 ran from the Uihlein place at Fontana in a northwesterly direction to Delavan (Turtle) Lake about 21½ miles away. Its course between the lakes was in part through a small draw through land now largely under cultivation. Dr. Paul B. Jenkins and others furnished information about this trail.

†See 12 Wis. Hist. Colls., 216.

*6 Wis. Hist. Colls., 450.

Chicago-Lake Geneva Trail. This trail from Chicago reached the south shore of Lake Geneva in Section 14 of Walworth Township. It passed through Indian Hills and Glenwood Springs and ran along the lake beach to Fontana. Boulder markers erected by the Geneva Lake Historical Society mark the course of this trail at the Fontana-Geneva Road and in Glenwood Springs. This is the trail over which Mrs. John H. Kinzie came to Lake Geneva from Chicago in 1831.

Lake Geneva-Kenosha Trail. Capt. Thomas J. Cram's Public Surveys map of Wisconsin Territory, 1839, shows a trail leading from the site of the city of Lake Geneva in a southeasterly direction to the Fox (Pishtaka) River and then eastward to Lake Michigan which it encountered at Kenosha (Southport). At the Fox it intersected a trail leading southward to Chicago. A portion of this trail is also shown on a Wisconsin Territory map of 1837.

Lake Como-Elkhorn Trail. Captain Cram's map of 1839 also shows a trail leading from near the northeastern end of Lake Como to Elkhorn.

Local Trails. Other trails, of a local character, followed the shoreline of Lake Geneva on both its north and south shores. Doubtless there was also such a trail on the south shore of Lake Como. A trail is reported to have run from Wychwood on the north shore of Lake Geneva in a northwesterly direction to the south shore of Lake Como.

LAKE GENEVA INDIAN HISTORY AND REMAINS

GENEVA TOWNSHIP

(The numbers refer to those which appear on the map)

1. *City of Lake Geneva Village Site and Mounds.*

On the present site of the City of Lake Geneva, on the northeastern shore of Geneva Lake, there was located in the years preceding the coming of the first white settlers to this locality a Potawatomi Indian village. Descendants of the Geneva Lake Potawatomi residing in northeastern Wisconsin state that their ancestors camped here as well as at other places on the shores of this lake. The Potawatomi

speak of this place as Ec'-she-ke-kos-kek meaning "fishing place." Doubtless they had villages or camps here at different times, these probably succeeding the habitations of another tribe on this shore.

At the present site of the city the White river, the outlet of Geneva Lake, flows in a northeasterly direction to the Fox river of which it is a principal tributary and which it enters at the present city of Burlington. A short distance northeast of the city of Lake Geneva this stream flows for several miles through a rather extensive area of marsh lands. Between Lyons and Burlington was a similar large marshy area. The distance between Lake Geneva and Burlington is about 11 miles. Indian stone and other implements have been collected all along the course of the White river between the two cities and at a number of these places Indian camp sites were evidently formerly located. Just south of Lyons the river widens into a small lake. In Lake Geneva where the river leaves the lake there was also formerly a small marshy area some evidence of which still remains. On the present site of the city there were also formerly springs and the region about was a good one for fishing and hunting.

Very little evidence of the former occupation of the present site of the City of Lake Geneva by the Potawatomi or of earlier Indian occupants remains. Very little of its early Indian history has been recorded. After the first white settlers established themselves here, in 1836, small groups of Potawatomi, left behind in the removal of their bands from southeastern Wisconsin, occasionally returned to camp near the lake shore and on and at the base of the hills along the river near the city.

An Indian camp site was located on the higher land of the Edgewater Beach Tourist Camp ground and undoubtedly extended over the ridge facing the lake and upon which the Edgewater Beach and several other summer resort hotels are now located. This site is on the south side of the White river being separated from it by a small tract of land formerly marshy. Willow Park, a small city park, lies between this park of the camp ground and the Geneva Lake shore. Although the land was occupied by automobile tourist campers and also under sod at the time of our

visits to this site a few flint chips and fragments, remains of a former chipping site, and a few burned and broken hearth stones were recovered here. Many flint arrow points and some other stone implements were collected on this site and the lots immediately east of it in former years.

A linear mound was formerly located at the south end of the ridge, at Baker street, in front of the old C. M. Baker residence now the "Antlers" summer hotel. This was between the house and the lake shore only a short distance away. This Mr. Baker described in 1872* as "a longitudinal embankment of slight elevation, some four or five rods in length, in front of my present residence." This mound has long since been leveled and there are but few, if any, persons living in Lake Geneva who remember it.

There were two Indian mounds in the part of the City of Lake Geneva lying north of the river. Mr. C. M. Baker states that "One was in the form of a large turtle in the village, and on the bank of Geneva lake, near the residence of the late lamented A. W. Farr." This mound is reported to have been located in Elm Park about where the public library is now situated. Albert C. Beckwith describes two effigy mounds in the "History of Lake Geneva" (p. 39). One "Lizard shaped with legs outspread, tail turned northwardly, was at the flat-iron point of Main and Lake Streets, Lake Geneva. It was 50 to 80 feet long, 10 to 12 feet wide, and 2 to 3 feet high. A large oak stump at its top gave a partial hint of its age. Little more than a block westward was a larger mound also lizard shaped with a larger tail. Both heads were near the water's edge. About the head of the lake were other mounds in size and shape not easily determinable and covered with a woodland growth." Mr. Baker's "turtle effigy and one of Mr. Beckwith's "lizard shaped" effigies are identical. The latter are now recognized as intended to represent the panther or water spirit. It is indeed a great pity that neither of these two effigy mounds were preserved. Either would be a greater attraction in Lake Geneva to-day than any park or building which the city possesses. So far as known no plat or drawing of these mounds is in existence, nor does there appear to be

* 6 Wis. Hist. Colls., 468.



GEORGE WAUBUNIM (WAU-BUN-MAH-IN-GUN)
OR WHITE WOLF, GRAND-NEPHEW OF CHIEF
BIG FOOT. WITH LEW SARRETT AND CHARLES
E. BROWN.



GROUP OF POTAWATOMI INDIANS, BLACKWELL,
FOREST COUNTY.



any information concerning the burials which they contained and which must have been disturbed when they were leveled.

In this part of the city a large number of flint and other stone implements have been found in past years in improving streets, building houses and cultivating gardens. Most of these appear to have been carried away by tourists who obtained them from finders or collectors.

The Lake Geneva News issue of August 4, 1892 mentions the finding of "A human skeleton by J. M. Stork and William Howe [on August 3] at the gravel pit near the engine house. It is of a full grown man and tolerably well preserved, though broken into many small parts. It was lying on the left side with the limbs drawn up. It was about two feet underground. It is probably the skeleton of a Potawatomi Indian and has been there for 50 or 70 years."

Evidence of former Indian camp sites also exist on the hillsides overlooking the bed of White river (the former Mill Pond) at the eastern limits of Lake Geneva. One of these was on the slope east of Sage Street north of the Dodge Street intersection. Here, in a small area from which the sod had been removed, flint chips and flint fragments, four pottery fragments and hearth stones were found. This pottery is of a dark brown color, tempered with crushed stone and sand. Two of the sherds have a reddish brown slip on the outer surface. These are ornamented with twisted cord-markings. These are evidently sherds from two different broken pottery vessels. Flint arrow points have been found in garden plots on the opposite side of the street.

An examination was made of the hillsides and fields of the Hillmoor Golf Course on the opposite side of the river and former millpond but without results. All of the land is either covered with the sod of the golf fairways or with trees. Many flint implements are reported to have been formerly found on the fields now occupied by this golf course and it is very probable that Indians formerly also camped here.

2. *Lake Geneva Manor Mound and Camp Site.* (NE. $\frac{1}{4}$ Sec. 35)

Mr. Henry Hammersly of Lake Geneva informed us of the former presence of an oval mound on the former L. Z. Leiter Estate (Linden Lodge), now the Lake Geneva Manor Subdivision, on the north shore of Geneva Bay, at the western limits of the city. The former presence of this mound Mrs. Hubbard Carpenter, residing on the adjoining estate, also remembered. It was located near the eastern boundary of the subdivision a short distance back from the lake shore and was recently destroyed in grading the land. No trace of it could be found at the time of our visits to the property in July 1927.

On this property the presence of a former Indian camp site is indicated by the finding of flint chips and fragments of a former workshop and a stemmed white flint arrowpoint near the bay shore in the southeast corner of the subdivision. Flint points have been found here and elsewhere along the shore by local collectors. A fine six inch spearpoint was obtained here during the early summer Mrs. Carpenter reported.

Along the front of this property the lake bank is elevated but little above the water. The land is rather flat for some distance back from the shore, then rises gradually to the Lake Geneva road (Main Street).

3. *Geneva Bay Cemetery.* (SE. $\frac{1}{4}$ Sec. 35)

An Indian burying ground was located on the Porter, formerly George Sturgis, property on the north shore of Geneva Bay, adjoining the Hubbard Carpenter property. When the cottage on this property was being removed a row of seven graves was disturbed by the workmen. This occurred during the seventies. Accompanying some of these burials were silver brooches and elk teeth, the latter evidently part of a necklace. This information was obtained from Mrs. Carpenter. No information concerning the character of the burials themselves was obtainable.

LINN TOWNSHIP

4. *Wychwood Camp Site.* (NE. $\frac{1}{4}$ Sec. 3)

An Indian trail leading from the north shore of Geneva Lake at Wychwood, Mrs. Charles L. Hutchinson's beautiful

wild life sanctuary, ran in a northwesterly direction to the south shore of Lake Como, a distance of about one and one-half miles. One of the woodland paths at Wychwood is reported to follow in part this early trail.

There are indications of a former Indian camp site at Wychwood which also extended on to the property adjoining it on the west. Quite a few flint points and blanks have been found in the garden and elsewhere on the Wychwood property. Mrs. Hutchinson has a small collection of these. Mr. William Longland, head gardener at Wychwood, informed us that about twenty-four years ago many arrow-points were found on a small knoll on the adjoining Lewellyn (then Edw. F. Swift) property. He promised a boy five cents apiece for all that he could collect there and in a short time the youth returned with twenty. We learned that on this knoll flint chips and fragments were also found indicating the location there of a wigwam workshop. This knoll was afterwards leveled and the site covered with garden soil.

Mr. Henry Tallman has in his collection about thirty flint arrowpoints found on the Swift place. Other Geneva Lake collectors also have specimens of points, scrapers and perforators from this site. A single grooved stone axe was found here by another collector.

5. *Shaw Cache.* (SE. $\frac{1}{4}$ Sec. 3)

In preparing the ground for the erection of a residence on the present W. W. Shaw property (Wadsworth Hall), in 1902 or 1903, when Mr. W. W. Harris owned this place, flint arrowpoints enough to fill "two pint" measures were disinterred and gathered up by the workmen. These points are supposed to have formed the whole or a part of a cache or hoard of points buried here by an Indian. This discovery is mentioned by Dr. Jenkins in his book. It was also reported to us by Mr. A. W. Harris, the son of Mr. W. W. Harris. The Shaw place lies a short distance west of Wychwood. Similar caches of blanks or points have been found in other places about the lake.

6. *S. B. Chapin Camp Site.* (Cent. Sec. 3) "Mukwa mukomin."

On the S. B. Chapin property, a short distance west of Wychwood, also on the north shore of Geneva Lake, there

were also evidences of a former aboriginal camp site. These were formerly to be seen where is now the fine garden on Mr. Chapin's estate. From this site the original soil has been removed and replaced by garden soil and these evidences of former Amerind habitation and flint implement manufacture thus obliterated. Quite a few flint points have been found here, some of which are in a small collection belonging to Mrs. Elizabeth Chapin Patterson, a daughter of Mr. Chapin. A spring brook flows to the lake along the eastern margin of the Chapin property.

There are indications that this camp site extended from the Chapin place westward along the shore of the lake to the fine springs on the adjoining A. C. Bartlett estate, the springs being known as "Mallory's Springs." These springs some of the old Potawatomi remember and speak of as good water", perhaps to distinguish them from others in the Geneva Lake region believed to be inhabited by a bad spirit. There is some reason to believe that in former days the camp site at this part of the lake shore extended over the entire shorelands from Wychwood to the Allerton and Ryerson estates beyond the Mallory Springs.

The land about the Chapin place is designated by the Potawatomi as Mukwa-muko-min, a place where the black bears in Indian days dug for "a certain kind of root" of which they were fond. It "had knobs (tubers) on it. It had a kind of bitter (pungent) taste". This may have been the ground nut (*Apios tuberosa*), a clinging vine with a maroon flower cluster and an edible tuberous root. The Indians both cooked and roasted the tubers.

This site is opposite The Narrows of Geneva Lake. Here the north and south shores of the lake are less than one-half mile apart and the Potawatomi, even in stormy weather, could generally make a safe passage in their log canoes from one shore to the other.

7. *Cisco Bay Camp Site.* (Fract. Sec. 5)

The Potawatomi formerly camped on the shore of this bay their wigwams being scattered along this shore from the present Elgin Camp or Lakeside Park properties westward to Cisco Bay. We were unable to learn their name for this district. Old Indians say it was a place of "good fishing",



BEADWORK POUCHES.

Ornamented with Thunderbird and Horned Panther Figures.
Potawatomi Indians. State Historical Museum.

In past years in the erection of cottages and improvement of lawns and cultivation of gardens a quite large number of flint implements, some pebble hand hammers, stone axes and celts, cut clam shells, pottery fragments and other Indian artifacts have been found. Most have been carried away to Illinois by residents and visitors.

On the W. H. Alford place the hearthstones of former Indian wigwam cooking places were found among the shrubbery and in the flower beds along the lake shore path. Some flint points have also been found by workmen in the pasture on this property. On the property adjoining this place on the east a brook, dry at the time of our visits, flows through a flat to the lake.

8. *Cedar Point Park Village Site.* (E. $\frac{1}{2}$ Sec. 6)

The very fine tract of land known as Cedar Point Park occupies the entire eastern shore of Williams Bay and is three-fourths of a mile in length. It was at one time owned by Mr. N. K. Fairbank. It has recently been subdivided and landscaped and is now being sold for the erection of summer homes. The woodland brush has been cleared away and the trees trimmed. A number of attractive homes have already been built. This land is for the most part hilly, the hills having on them many fine oak trees, the remains of a fine forest which covered the entire area in the early years of white settlement about Geneva Lake. Previous to that time the Potawatomi camped everywhere on Cedar Point and especially in two rather level draws between the hills which have now been converted into attractive parks.

Nearly all of Cedar Point is under sod and forest making a search for archeological evidence difficult. In each of the parked areas burned and cracked hearthstones were found in the flower and shrubbery beds, also fragments of pottery vessels, flint chips and flakes, and a lump of baked clay. Springs are at the lake edge of two of these parks. Two of the potsherds found are tempered with crushed stone, and have their outer surfaces ornamented with twisted-cord impressions. Across these four parallel lines have been drawn with a blunt instrument.

Other fire stones, flint rejectage, arrow points and a

white flint native gun flint were found at different points along the high, eroded lake bank. Flint arrowpoints have been found by workmen and visitors. The head of the Point is elevated from forty to sixty feet above the waters of the lake. At a distance of about a city block east from the end of the Point and about fifty feet from the lake bank there is a huge grey granite boulder with another rock of the same material lying near by. The large boulder is at least 4 feet high and $3\frac{1}{2}$ by 5 feet in size at its base. It is on the eastern edge of a small parked area and beneath a large oak tree. This boulder the Potawatomi say is a former spirit stone or shrine (*shin-ga-ba-sin*) and offerings of tobacco were at one time made on it. The legend concerning it has not been recovered. Their name for the Point is *Ke-she-ge-ki-ah-ke-tah-ke-wun*, meaning cedar hill or ridge. They have a saying that a cedar represents a dead Indian. By cutting down a cedar the Indian is killed a second time.

Shack Site

On the north side of the road to Williams Bay (Lake Shore Road) at the northern boundary of the Cedar Point Park Subdivision is a small tract of woodland which fronts on the Williams Bay marsh. A small cottage or shack stands near the marsh edge. In several small garden spots near this shack hearthstones and flint chips and fragments are abundant showing that at least one wigwam home was once situated here. The flint worked here was of white and gray colors. A flake scraper was also recovered. Many arrowpoints have been found here by collectors. Flint chips were also found in bare spots in the woodland in the rear of the shack. Small test pits dug in several places revealed no further evidence. This site is doubtless only a northward extension of the Cedar Point Park village site.

9. *Williams Bay Marsh Village Site.* (NW. $\frac{1}{4}$ Sec. 6)

From the present northern shore of Williams Bay an extensive marshy area, the Williams Bay marsh extends northward for a distance of three fourths of a mile. At various places along the rim of this marsh evidence of former Indian camp and village sites are found. The most

extensive and productive of these sites is located on the farm of Albert W. Harris and adjoining land on the eastern edge of the marsh. Working northward from the Shack camp site, on the Lake Shore road just described, traces of this former village site were first encountered on a low ridge east of the Harris farm pasture and just above the C. & N. W. R. R. track. The track cuts through this portion of the site.

The ridge is wooded. Along its southern base is a former arm of the Williams Bay marsh a large part of which is now under cultivation. Along its northern edge are cultivated fields. The point of this ridge was graded away in preparing the roadbed for the railroad track to the Williams Bay depot.

Along the edge of the cut bank of this ridge flint chips and spalls, white in color, hearthstones, a flint flake scraper, bits of pottery, and a part of a broken notched flint spearpoint were found. Undercutting this bank with trowels just below the sod line revealed other flint refuse. In a cultivated field along the southern base of the ridge two white flint arrow blanks were found. When the point of the ridge was cut away it is reported that a burial was disturbed and other flint and stone implements were found.

Lying west of this ridge, on the edge of the marsh, is the pasture of the Harris farm. Over it this village site also extends. Its eastern boundary is the so-named Harris Road to Williams Bay. This field was under sod at the time of our survey so that its evidences of former occupation, save a few scattered hearthstones, were not revealed. When formerly under cultivation numbers of flint points are said to have been collected here. A spring is located near its western edge.

On the opposite side of the Harris Road is the richest known part of this village site. It occupies a spit or tongue of sandy and gravelly elevated land which extends for a considerable distance into the Williams Bay marsh from the north. All but the extreme point of its tongue is under cultivation. The part under cultivation lies south of the old Harris farm house, orchard and barns. On the top of three knolls in this field, on the backbone of the elevated land, are found the fire-cracked hearthstones of at least

three former wigwam sites and the flint rejectage of the Indian arrowmaker. Other fire stones, from two or three other habitations are found near the road, at the base of the eastern slope. Similar traces of the former location of another wigwam were found in a small strip of cultivated ground on the edge of the former marshland at the western slope of the ridge, west of the Harris farm house.

From this Harris farm site we collected during several visits three flint arrowpoints (one, a fine triangular point), a number of broken and unfinished points, a fine pitted hammer stone, flint blanks, an oval stone "ball", and a portion of a small mica schist gorget. The flint worked here was largely of white and grey colors. Several white flint nodules were also found. Doubtless these and others were brought to this village site for the use of the arrow-smiths.

This field has produced in the course of years of cultivation large numbers of flint and a considerable number of other stone implements. It has been a favorite collecting ground for local collectors. We estimated that the number of flint implements recovered must have been in the neighborhood of a thousand specimens at least. Mr. Frank Moseley, an employee of the farm, has a considerable number of flint implements. His collection included at the time of our survey 11 flint blanks, 13 stemmed points, 35 notched points four of which were spearpoints, 1 triangular point, 8 knives, 1 perforator, and 7 broken points. Fifty of these are of white and greyish colors. One is made of brown hornstone. This collector also has a grooved stone axe which was found on this site. Mr. Frank Hackett informed us that when his father farmed this ridge field, some twenty-one years ago, enough arrow and other points were found to fill a water pail. Arrowpoints were found in numbers every time this field was plowed.

The Indian residents of this site had a planting ground at the base of the ridge slope on the eastern edge of the marsh. The corn hills were to be seen here until destroyed by the plow.

Of the history of this site, which was probably occupied by the Indians for a long period of time, nothing is known. Potawatomi families camped here occasionally after the

first white settlers came to the Geneva Lake region. The nature of the artifacts found here appear to indicate that it is an Algonkian site.

10. *Harris Cemetery.* (SE $\frac{1}{4}$ Sec. 31)

When the Arthur W. Harris residence was being erected on a knoll which commands a fine view of both the Williams Bay and the Lake Como marshes an Indian cemetery was disturbed. Mr. Harris informed us that this knoll was originally bare of trees. This burying ground was discovered when the knoll and surrounding land was being graded. These graves were arranged in three north and south rows, one being on the edge of the knoll beneath the present house porch and the other two on its slope. About forty graves in all were found. These were made by digging shallow round pits in the soil and placing the dead in these in a sitting posture. Black earth was then filled in about and above the bodies.

Accompanying these interments were flint points and knives, shell beads, stone celts and other articles of Indian manufacture. To these the workmen and others helped themselves, also carrying away many of the bones.

Parts of two adult skeletons are preserved in a box in the attic of the old Harris farmhouse. Several of the arm and leg bones show fractures which have healed.

Mr. Harris has in his study in a small glass case a well preserved skull of a fine type. Its back is not flattened indicating that its owner was probably never bound on a cradle board. There is a string of beads, twenty-five in number and of the kind made of the columella and thick walls of large sea shells. Some of these beads are rather square in form with one or several sides flattened. The smallest are about one-half inch in diameter. Some show on one face the white enamel of the shell surface. The entire string is fairly heavy. He also has five blue hornstone blades which were found in a grave. These are from 3 to $3\frac{1}{2}$ inches in length. A small polished grooved stone axe has a rather short, thick blade, due perhaps to its having been frequently re-sharpened.

Mr. Harris believes that this cemetery may be even more extensive than was indicated during the grading of the

land. Other graves may be still beneath the sod of his lawn.

The pasture field forming a part of the East Williams Bay village site lies south of the Harris residence.

11. *Baker Bird Effigy.* (Sec. 31)

Charles M. Baker in an article printed by the Wisconsin Historical Society in 1872 described a large bird effigy mound:

"But the most notable one [mound] is on an eminence near the highway, between Williams Bay on Geneva Lake, and the head of Duck Lake [Como], overlooking both. This is in the form of a bow and arrow the span of the bow is about fifty feet across which lies the arrow of corresponding size, aimed for discharge into Lake Geneva. The idea was finely conceived. In this mound specimens of Indian pottery have been found, which are in the speaker's possession, and for which he is indebted to Mr. Warren Beckwith."*

Mr. Albert C. Beckwith in his "History of Lake Geneva" also mentions this mound: "On Section 31, Town of Geneva, between Lakes Geneva and Como, was a bow and arrow shaped mound. It was 80 or 90 feet long." (p. 39)

Of this former bird effigy we were able to find no trace, nor to meet anyone who had seen it. The section mentioned as its former location would place it somewhere along the northeastern edge of the Williams Bay marsh, probably not far from the present A. W. Harris home. Very likely a burial accompanied the pottery found in this mound. The destruction of this effigy mound is very much to be regretted. If it had been preserved it would be today one of the wonders of Geneva Lake.

12. *Colby Camp Site.* (NE $\frac{1}{4}$ Sec. 25, Delavan Twp.)

The former location of a camp site is indicated by refuse of flint working and hearthstones in a field of the Colby farm at the northern edge of the Williams Bay marsh. Many flint points are reported to have been collected here. This site was a good location for Indian hunters of water fowl. The several springs in which rise the two creeks

*6 Wis. Hist. Colls., 468.

which flow through the marsh rise are located in this vicinity. The lands of this camp site were in poor condition for a careful examination during the period of our survey.

13. *Axel Johnson Camp Site.* (SW $\frac{1}{4}$ Sec. 31)

Another Indian camp site is located on the property of Axel Johnson on the northern rim of the Williams Bay marsh, on the highway from Williams Bay to Elkhorn. In the rear of the greenhouse of Axel Johnson & Son is a narrow piece of land the top of which is elevated about 20 feet above the former marsh and only a few feet above the highway. In stripping off the black soil of this land for greenhouse uses this former camp site has been uncovered. Hearthstones are scattered over a part of this area also chips and fragments of white and reddish chert. A single small crushed-rock tempered, roulette-ornamented potsherd was also found. Four flint arrowpoints were found here by workmen on the occasion of our first visit to this site. Quite a number of arrow and spear spearpoints had been previously found. It is likely that this site will be found to extend further north on this land when more of it has been disturbed.

There are two springs in the marshland east of this site. South of the greenhouses the former marsh has been drained and is occupied by the Johnson flower gardens. West of the highway a spring brook flows through the Southwick farm to the marsh. Here evidences of a continuance of the Johnson site have been found.

14. *Palm Camp Site.* (SE $\frac{1}{4}$ Sec. 36, Delavan Twp.)

On the Oscar Palm place at the foot of the Williams Bay hills, on the western edge of the marsh is another camp site of small extent. This site was not under cultivation and unfavorable for examination. Mr. Palm reported the finding here of many flint points, flint knives and a grooved stone axe.

WALWORTH TOWNSHIP

15. *Orchard Street Camp Site.* (NW $\frac{1}{4}$ Sec. 1)

This former camp site is located on the edge of a ravine or draw at the northern terminus of Orchard street, in Lockwood's Subdivision addition to Williams Bay village.

It is at a distance of about a city block west of the former western edge of the marsh. The surrounding hills are oak clad with here and there a house or cottage. A stony brook, dry in the summer time, courses down the ravine north of this site. The ravine is about 200 feet wide near its mouth. A half block to the northeast near the edge of the former marshland is a spring.

We found a part of this camp site exposed in a small garden. In this spot we counted a hundred hearthstones of different sizes exposed on the surface of the soil in a space about 30 by 60 feet in size. Others were exposed by the trowel. Here and over the remainder of the garden flint chips and spalls were quite numerous. Broken white flint nodules, the tip of a broken arrowpoint, a pebble hammer stone and pieces of bone were also found. Several arrowpoints and another hammer stone were found here by local boy collectors. It is likely that this rather secluded spot was the former site of a single wigwam.

16. *Hill Top Camp Site.* (NW $\frac{1}{4}$ Sec. 1)

Rising above the ravine mentioned in the preceding paragraph is a high hill, on the side of which a small gravel pit has been opened. On the top of this hill, in the rear of the Carlson farm house is a cultivated field. In this field, at its eastern edge, is a camp site where hearth stones, flint rejectage and broken white flint nodules occur. The flint in use on this site in implement making is chiefly of a white color. Some flakes and fragments of bluish white and reddish flint were also found. Quite a few arrowpoints made of these three kinds of chert have been found in cultivating this field. East of the field the top of the high hills is covered with oak trees.

17. *Williams Bay Village.* (Sec. 1)

The west shore of Williams Bay, at present occupied by the stores and homes of residents of Williams Bay village, by summer resort hotels and the dwellings of summer residents was the site of another early Indian camp ground. From the Bay Shore Inn southward along the Bay shore to beyond Summer Haven the land along the shore is level for a distance of about a city block westward then rising gradually to higher land and hills behind. Several spring brooks

flow through this land to the Bay. On the Summer Haven property, now subdivided and being prepared for sale, there is a fine stand of tall trees, a remnant of the forest which at the time of the coming of the first white settlers covered both the Bay shore and the hills from the center of the Village to Conference Point (former Camp Collie) at the southern end of this beautiful Bay.

Over this shore and on the hills the rush-matting and bark-covered lodges of the Potawatomi were scattered up to the time of their removal from the shores of Geneva Lake, in 1836. No census of the number of its Indian inhabitants or count of the number of lodges is available. Neither is there any information concerning the time when the red-men first pitched their wigwams here. In Forest, Wood and other counties in Wisconsin and in Kansas are a few Potawatomi families whose parents or grandparents were residents of this village, whose chief appears to have been Big Foot, whose place of residence was at the Potawatomi village at Fontana, at the western end of Geneva Lake. Doubtless this encampment had a sub-chief but his name has not been learned.

In past years hundreds of flint and of heavier stone implements have been collected in the village of Williams Bay, especially from the district north of Geneva Street on the lowland fronting on the Williams Bay marsh. Recently numbers of flint points were found in making village improvements near the Al. Johnson garage. Although occupied by lawns, gardens and buildings a few vestiges of former Indian occupation were observed in the part of the village lying south of Main Street. At Summer Haven Indian hearthstones and flint chips were found in the newly graded street leading down to the lake, also in the rear of the boatyard. The flint chips of a small workshop site are also found at the lakeshore path south of the boatyard. Beyond this spot hearthstones were found sticking out of the lake bank in front of the Lackey Bros. property, doubtless marking the site of an Indian wigwam in days when the lake bank was some fifteen or eighteen feet further out in the Bay than at the present time. Here, in the lakeshore path quite numerous chips and fragments of a light bluish-white flint and a flint scraper were obtained. Some

flint arrowpoints have been found here. A brook flows into the lake along the northern line of the Lackey property. The lake bank at this property is from six to ten feet above the water of the Bay. Another brook flows through the Summer Haven tract and to the Bay through the Fernwood Hotel property. Hearthstones were also found in bare spots in lawns and other places north of the Congress Club.

Other properties lying between the Lackey property and Conference Point were unfavorable for examination. Conference Point at the head of this shore of Williams Bay, is the highest land on the shores of Geneva Lake, with a precipitous slope on its east and south sides. Its western slope is more gradual with a small formerly swampy area at its base through which a brook flows to the lake. Some fine tall maple trees stand on this slope. A small, rudely fashioned stone axe was found in the roadside bank north of the assembly hall on the top of the Point. Here and elsewhere on the crest of the Point scattered fireplace stones were obtained, and a number of white flint chips at the base of the western slope. Some arrowpoints have been found here in recent years.

WILLIAMS BAY CEMETERY

The Potawatomi burying ground at Williams Bay village has been described by Dr. Paul B. Jenkins:

"The burial place of at least two other members of Big Foot's domestic establishments were known to the first white families of the Lake Country. Near the lodges clustered on the low, sloping ground rising from the northwest curve of Williams Bay, at a date shortly before the removal of the Indians in 1836, two of the chief's wives had been "buried" on a rude framework raised above the ground. Their remains were dressed in fine broadcloth decorated with many pierced silvered disks of which the squaws were very fond, both material and ornaments being among the more valuable articles carried in stock by all the trading posts and greatly desired and prized by their Indian purchasers. Their wrists and forearms bore bracelets and flat bangles of silver, and their ears were pierced and hung with similar trinkets. Beside each was placed a pipe and to-



CHICAGO-GENEVA TRAIL MARKER
Plate 5,

bacco, food for the long journey to the spirit world, and a tin pail of whiskey to cheer them on the way. The whole was then roofed over, for protection against the weather, with large slabs of bark.

"On the departure of the Indians from the neighborhood the bodies were removed from their above ground position and interred on the spot. The place is now (1922) a knoll in a lot next east of Mr. E. H. Hollister, on East Street, in the village of Williams Bay. The tradition indicating this as the grave site was verified by Mr. Hollister in the summer of 1920, when a slight excavation brought to light the skeleton of one of the women. With it were found many of the above-mentioned burial ornaments, fragments, of the broadcloth in which the remains had been wrapped, the perforated disks, originally silvered, tiny bells, finger rings and ear rings, and not less than eight hundred beads, both "trade" and native origin, which were carefully sifted out of the earth by Mrs. Hollister. From their location with the remains these had evidently formed a necklace, a beaded girdle, and the usual elaborate bead decoration of the finer styles of moccasins. The skull, the beads, other ornaments, portions of the broadcloth wrappings and of a skin moccasin are shown in an accompanying illustration. With the remains were also found several big bones of fowls, perhaps prairie chickens, which may have been part of the food placed with the remains. The skeletons of two small children were found in the same grave, and with these the bones of a small dog, possibly a pet killed and buried with them to be their companion in the spirit world.

"Many other interments were in the neighborhood which was a favorite burying ground of the Indian residents. These dotted the "oak openings" where are now the lawns and slopes of Geneva Street south to the woods on Conference Point. Less pretentious in character, these were generally ordinary graves, a low mound being raised above each. In the eighties the writer was present at explorations of these graves, which disclosed chiefly a few flint implements of domestic use, skin scrapers [celts] for "fleshing" hides before smoke tanning, and the like, indicating the resting-place of other squaws, whose characteristic la-

bors their relatives evidently considered would continue beside the Happy Hunting Grounds.”*

Mr. Hollister now owns the property upon which the Indian woman's grave was situated. The grave was a small conical mound of earth about 20 feet in diameter located on the top of a small knoll at a distance of about 60 feet back from the street line. The burial was about 2 feet from the top of the mound. In the grave with her remains were numerous glass and some wampum beads, pieces of cloth to which were attached three or more medium-sized silver brooches, several silver finger rings, a perforated thimble doubtless used as an ornament, and the metal handle of what may have been a hand mirror. The beads were found at the neck, at the waist and at the feet of her skeleton. Mrs. Hollister has the skull and most of the above mentioned articles. The skull has a slight flattening at its rear, produced very likely by her being bound on a cradleboard in babyhood.

On unoccupied property, then wooded, east of the Williams Bay public school, on the north side of the Conference Point road, Dr. Jenkins in 1884 excavated an Indian grave which contained a full-length burial. With it was a notched flint scraper. About three hundred feet south of it was another grave in which the badly decayed bones of another Indian were found. Both were shallow graves dug very near the surface of the ground.

Some of the Indians occasionally returned to the burying ground at Williams Bay.

An “Indian garden” is reported to have been located on the Royal J. Williams farm at the northern limits of Williams Bay village. Mr. L. J. Williams reported the finding of many flint points on his father's farm in Delavan Township, northwest of Williams Bay. In former years, and up to as late as 1867, the Potawatomi frequently came to his farm to obtain supplies of pork, flour and other food.

18. *Y. M. C. A. College—Mt. Olivet Camp Site.* (NW. $\frac{1}{4}$ Sec. 12)

There are indications that an Indian camp site was once located on the very attractive forested hillside slope where

*The Book of Lake Geneva.

*The Book of Lake Geneva, pp. 31-33.

are now the buildings, cottages and tents of the Y. M. C. A. College Camp, at the northwestern angle of Geneva Lake. Because of the presence of numerous buildings and of the grass-grown slopes between them discovery of the hidden traces of this former occupancy of the redmen was difficult. The results of a search for these were meagre yet sufficient to indicate that they had once sojourned here. Hearthstones were collected from a disturbed area on the slope near the Woman's building. A number of white flint chips were near these. A single pebble hammer stone was found a few feet away by a workman engaged in raking up loose stones and other debris. Repeated examinations of other likely spots on the Camp grounds yielded no additional evidence.

Many flint arrowpoints have been picked up on these grounds in recent years being washed out of the hillsides by rains or otherwise disturbed. Lambert Lindquist, an employee of the Camp and an active local collector, informed Dr. Paul B. Jenkins that he had collected some fifteen chipped flint points here. Edward Zabler, caretaker at the Yerkes Observatory, and a former employee at the Camp, had also found some. Dr. Jenkins himself found an obsidian point by the side of the path on the hillside above the camp and not far from the Observatory. We found a single arrowpoint in the path on Vision Hill in the rear of the Camp.

At the southern boundary of the camp, in a small draw on the grounds of the Fresh Air Camp, hearthstones were found indicating the location of a former Indian lodge site. A spring brook flows to the lake through the draw. Between the northern limits of the College Camp and Eleanor Camp and between this place and Conference Point no evidence of former aboriginal occupation were found although the lake shore, the hillsides and the lands on their tops were examined. These traces remain to be discovered and probably will be when these places are disturbed by the erection of buildings and by other improvements which the passage of years will bring.

Indians are reported to have at one time camped over the entire lake shoreline between Williams Bay and Fontana.

Nine springs and ten spring brooks are in existence be-

tween the Y. M. C. A. College Camp and Buena Vista at Fontana. The entire shore of the lake from Fontana to Williams Bay was once highly forested.

19. *Davis Farm Site.* (NE. $\frac{1}{4}$ Sec. 3)

Many Indian arrowpoints and some blanks have been found scattered over the Wm. R. Davis farm on the Williams Bay to Delavan Road. Mr. Davis has a collection of seventy-five flint arrow and spearpoints of triangular, stemmed and notched forms which were found in the cultivation of his land. A fine stone spud found here was 9 inches in length. An iron trade axe was also obtained here. Other persons have also collected flint arrowpoints on this farm. Indications point to its being a former Indian camp site. An Indian trail from Fontana to Delavan Lake, elsewhere described, passed over a portion of the Davis property.

20. *Uihlein Spring Burial.* (NE. $\frac{1}{4}$ Sec. 11)

A fine brook flows in a general easterly direction through a narrow, wooded valley on the former E. S. Uihlein property to the lake. In this valley is the famous Uihlein spring. No traces of former Indian occupation were found in this valley the land being for the most part grass and brush covered.

On September 1, 1927 there appeared in The Walworth Times a brief description of the finding of an Indian burial on the site of the former Uihlein summer home where a Mr. Henschell was erecting a new home. This burial was disturbed by Eli Young of Fontana and Albert Rutter of Walworth while engaged in digging a ditch and cesspool on the south side of the building, at the site of a former tree recently cut down. "Despite the fact that the skeleton was buried only two feet beneath the surface, it was still well preserved. The skull was excavated first. Then the workmen found the shoulder bones and arms. Digging still further they found the limbs. The lower part of the limbs and feet, being imbedded under a large root, were left. On the back of the skull a dent is plainly seen. This is evidence that the Indian had probably been killed with a blow from some blunt weapon." Dr. J. M. Johnson of Harvard examined the skull,

With this burial (near the skull) was a red catlinite pipe. "Its bowl is $2\frac{1}{2}$ inches in height, rather slender, the hole to receive the tobacco being only the size of a dime. The stem is about the same length as the bowl."

This skeleton was determined to be that of a "mature Indian and having a large frame".

21. *Belvidere Park Camp Site.* (SE. $\frac{1}{4}$ Sec. 11)

This place is located about midway between Mt. Olivet Camp and Fontana. There is a fine spring here, some distance back from the lake shore, in a parked area between two rows of summer resort cottages. It is reported that many flint points and other indications of a camp and workshop site were found here years ago when some of the homes in this resort were erected. John Shobie, the caretaker, is reported to have collected as many as one hundred arrowpoints in the vicinity of a large oak tree. These were probably a cache or hoard of implements which had in some wise become thus scattered.

22. *Big Foot's Village.*

Adjoining the western end of Geneva Lake is a large marsh area, the Big Foot Marsh, hemmed in on its northern, western and southern sides by picturesque, high wooded hills. Through this marsh, the size of which has been somewhat decreased by the use of a sand pump, flows Fontana Creek, a stream fed at its source near the base of the western hills by a number of fine crystal springs. At its western end this stream was dammed for use as a millpond. Another creek fed by springs located on the present Big Foot Country Club grounds on the south side of the marsh flows through the marsh and unites with Fontana Creek a short distance from where the latter pours its waters into Geneva Lake.

On the north side of the marsh and extending back to the base of the high wooded hills in its rear nestles the village of Fontana, a community which derives its name from the fine springs at its western limits. On the south side of the marsh rise the wooded hills of the Big Foot Country Club Estates, a recent real estate development, and the adjoining Country Club grounds.

Mr. Frank Featherstone and Mr. Dell Crumb, both old

settlers of Fontana, state that there was never any wild rice in the Big Foot Marsh. Muskrats were plentiful in early days, many wild fowl frequented the marsh and lake, and deer were abundant.

There are several descriptions of Chief Big Foot's Potawatomi village. One of these is given by Mrs. John H. Kinzie in her well-known book, *Wau Bun, the Early Day in the Northwest*. In 1831 with Mr. Kinzie and a small party of friends and employees she came to Geneva Lake over the Indian trail from Chicago. Mr. Kinzie was on his way to Fort Winnebago at the Fox-Wisconsin portage, a post at which he was to serve as sub-Indian Agent for the Government. Her description of the Lake and the Indian village is quoted in part:

"Soon after mid-day, we descended a long, sloping knoll, and by a sudden turn came in full view of the beautiful sheet of water denominated "Gros-pied" by the French, "Maunk-suck" by the natives, and by ourselves "Big Foot", from the chief, whose village overlooked its waters. Bold, swelling hills jutted forward into the clear blue expanse, or retreated slightly to afford a green, level nook, as a resting-place for the foot of man. On the nearer shore stretched a bright, gravelly beach, through which coursed here and there a pure, sparkling rivulet to join the larger sheet of water.

"On the rising ground, at the foot of one of the bold bluffs in the middle distance, a collection of neat wigwams formed, with their surrounding gardens, no unpleasant feature in the picture.

"We paused long to admire, then spurred on, skirting the head of the lake, and were soon ascending the broad platform, on which stood the village of Maunk-suck, or Big Foot.

"The inhabitants, who had witnessed our approach from a distance, were all assembled in front of their wigwams to greet us, if friends, if otherwise, whatever the occasion should demand. It was the first time that such a spectacle had ever presented itself to their wondering eyes. Their salutations were not less cordial than we expected. "Shaw-nee-aw-kee" [John Kinzie, Sr.] and his mother, who was known throughout the tribe by the touching

appellation of "Our friends wife" were welcomed most kindly, and an animated conversation commenced, which I could understand only as far as it was conveyed by gestures—so I amused myself by taking a minute survey of all that met my view.

"The chief was a large, raw-boned, ugly Indian, with a countenance bloated by intemperance, and with a sinister, unpleasant expression. He had a gay-colored handkerchief upon his head, and was otherwise attired in his best, in compliment to the strangers.

"It was to this chief that Chambley, or as he is now called, Shaw-bee-nay, Billy Caldwell and Robinson were dispatched, during the Winnebago War in 1827, to use their earnest endeavors to prevent him and his band from joining the hostile Indians. With some difficulty they succeeded, and were thus the means, doubtless, of saving the lives of all settlers who lived exposed upon the frontiers.

"The village stood encircled by an amphitheatre of hills, so precipitous, and with gorges so steep and narrow, that it seemed almost impossible to scale them," Etc.

She gives a fine description of the conveying, assisted by the Indians of the four-wheeled carriage in which a part of the Kinzie party were traveling, by means of ropes from the village up the steep and stony bed of a dry run to the top of the hills.

Dr. Jenkins in his book adds the following information:

"The approach of the party to the Lake, and the first glimpse of its waters, must have been from the hills behind the resort of Glenwood Springs, whence they descended to where the road skirts the beach at the west end of the Lake, as the Indian trail passed between the water and the swamp at that point. Big Foot's village stood on the natural "platform", as the elevation is called, the rising ground at Buena Vita Park and vicinity, on both sides of the road where it turns westward from the lake shore. The "pass that the inhabitants pointed out as the most practicable from the shore to the summit of the surrounding bluffs, must have been the natural ravine now used by the Delavan-Fontana Road, beside which lies the creek, called by Mrs. Kinzie, "the dry bed of a torrent, filled with loose stones." The level ground above it is some 180 feet above the Lake below.

On accomplishing the ascent of their wagon and freight, the party struck northwestward to their next encampment on Turtle Creek, probably passing near where Darien now stands, as they were following the trail to Lake Koshkonong.”*

“A description by a visiting missionary (Rev. A. S. Dwinwell), who in 1836 was one of the early white visitors to Big Foot’s village, gives some details of the appearance of the cluster of huts along what is now the Fontana shore. From where Buena Vista Park now stands, these extended for a quarter of a mile southward and to the foot of the high bluffs behind. The lodges, constructed in the described Potawatomie manner, of mats of woven rushes on arched poles of roofed over with bark, were small, each only about 10 feet in diameter. In the center of the group stood the larger, more elaborate lodge of the chief, serving on occasion as the council house of the tribe. It was further distinguished by a tall red-cedar pole before it, from which the bark had been stripped, of considerable size and height, described in the reminiscences of early settlers as “about twice as tall as a telephone pole”. This is frequently spoken of as “the chief’s flag staff” or “council pole” and a portion of it remained standing for decades after the Indians had left the country.”

“The location of this lodge of the chief and its designating pole is still known, having been situated on the rising ground south of the east and west road through Fontana today and just back of the residence and garden of Mr. M. T. Barbour.”

“On a visit made to the village in 1833, John Brink, later the government surveyor of the Lake district, saw suspended in a great bur-oak tree near the lake shore east of the Indian village a hollowed-out butternut log, serving as a coffin in the not uncommon Indian “tree burial”. It contained the body of a son of the chief, believed to have been about fourteen years of age. The coffin was made by splitting a 6-foot log and hollowing out one portion for the reception of the remains, with which was placed a pipe and tobacco, the youth’s bow and arrows, and some silver orna-

*pp. 61-62,

ments. The other part of the log was then placed to serve as a cover, fastened with wooden pegs, and the whole lifted and fastened in the crotch of the tree. The father's reason for this disposal of the body was touchingly given to the inquiring whites as, "He was always so fond of looking at the Lake that now his spirit shall be able always to look at its waters."

On a later visit, three years afterward, Brink reported this coffin to have disappeared. Local report laid its molestation to the vandal hands of rough characters among the passing westward migrants of the time. The skeleton of its occupant was long retained in the possession of a Dr. Wood, a well-known physician of the neighborhood. Despite rumors to the contrary, and assertions even today that the tree originally containing this "burial" is still standing, the consensus of opinion of the surviving oldest residents of the village of Fontana is that the actual oak tree used for the purpose was cut down in the winter of 1865 by C. B. Hollister, then a young man of the locality and still (1922) a resident of Fontana. Its location remains well known, at the water's edge on the Buena Vista Park shore.**

On July 28, 1927, the Geneva Lake Historical Society unveiled with appropriate ceremonies a boulder marker on the site of Chief Big Foot's village at Fontana. This is located on the lake bank at the eastern end of Main Street. The bronze tablet on the front of this boulder bears the legend: "A village of Potawatomi Indians occupied the rising ground west of this point when the first whites visited the lake, May, 1831. The intention of these Indians to join the hostiles in the Black Hawk war of 1832 was defeated by Shabbona, an Ottawa Indian friendly to the whites who here learned of the impending attack and warned the settlers. The Indians lands were bought by the United States at the great council at Chicago in 1833 and the Indians were removed to western reservations in 1836."

Mr. Marquette A. Healy presided at the dedication program, the speakers being Dr. Paul B. Jenkins, Mr. Charles E. Brown, chief of the State Historical Museum, and Mr. John Goslyn, a Wisconsin Indian. Mr. S. B. Chapin un-

*The Book of Lake Geneva, pp. 29-31.

veiled the marker. A large and notable company were present at the unveiling.

Another marker was also unveiled here on this occasion. This stands a few rods west of this site. The tablet reads: "The lodge of the Potawatomi chief 'Big Foot' stood a few feet south of this point until the removal of the Indians in 1836."*

"The Indian chief Big Foot's band of Potawatomie were then (1836) living at this place (Fontana) and on Williams Bay, on the north side of the Lake. They cultivated some corn, and, the hills where they raised it were still visible as late as 1840. The stump of Big Foot's flag staff is still in existence, on an eminence near the head of the lake."†

Dr. C. M. Johnson of Harvard, Illinois, informed the writer that there formerly was in Fontana, north of Main Street, a fine spring marked by the presence of three large birch trees. This was pointed out as Big Foot's spring.

The Potawatomi in early days raced their ponies on the lake beach at Fontana.

Archeological Evidence

In years past many flint implements and some of the heavier stone implements have been found on the land now occupied by the village of Fontana. Most of these have been sold to or given to summer visitors and carried away by them. A few flint arrowpoints, scrapers and blanks are in the hands of present residents of the village. We were shown one large and well made grooved stone axe. This specimen is somewhat oval in form with a rounded poll flattened on top, a deep handle groove extending around three sides of the implement, with a prominent ridge below, and with a broad blade its cutting edge blunted by use. The front of the blade is narrow and flattened and the back slightly concave. This axe is about $8\frac{5}{8}$ inches in length, 5 inches wide below the handle groove, and $3\frac{1}{4}$ inches wide at the cutting edge. It is made of diorite, is not polished, and weighs $6\frac{1}{2}$ pounds. A pebble pipe found here is made of dark brown sandstone. It is somewhat conical in form,

* The Book of Lake Geneva, pp. 29-31.

† 6 Wis. Hist. Colls., 450.

the top and base flattened, and the side which contains the stem-hole also flattened. Its height is 2 inches. An adz-axe found here is in the State Historical Museum (A 10029). The specimen is made of syenite, and is smooth but not polished. Its length is about $5\frac{1}{8}$ inches, its greatest width (above and below the handle groove) 2 inches, and its greatest thickness 1 9-16 inches. Its cutting edge is about 1 inch wide. One surface of this implement is flattened from the rounded poll to the cutting edge of the blade, the other surface is convex. The poll is flattened on top, the handle groove about 1 inch in width. This rather unusual specimen weighs $1\frac{1}{8}$ pounds. It is a type of wood-working implement such as would be useful in hewing out a log canoe or doing similar work.

Perhaps the finest Indian artifact found at Fontana is a groget of the tablet form, with squared ends and slightly curved edges. This fine specimen is also in the State Historical Museum (A 10028). It is made of black and white granite and is well polished. Its length is 5 inches, its width at the top $1\frac{1}{2}$ inches and at the bottom $2\frac{1}{4}$ inches. Its greatest thickness is only about $\frac{1}{4}$ inch. It has a single perforation, about $1\frac{1}{4}$ inches from its top. G. R. Moore reports the finding of two discoidals, the only artifacts of this character at present known from the Lake sites.

Some years ago a cache of about two hundred "turtle-back" blades was reported as having been unearthed at the west end of Geneva Lake, presumably in Fontana. These were made of "a bluish colored chert (blue hornstone), in some instances almost black." They were "flat on one side and oval (convex) on the other. They were all of about the same size, 4 to $4\frac{1}{2}$ inches wide and from 5 to 6 inches long. They were found by a Chicago visitor and taken to that city." The present whereabouts of this interesting hoard of blades is not known.

In Fontana, at the lake shore end of Main Street, on the E. L. Mead vacant corner lot, opposite the Big Foot Village marker erected here by the Geneva Lake Historical Society, flint chips and fragments and fireplace stones were found exposed in the cut bank of the roadside. As the lot itself is covered with trees and sod no further examination could be made here. The road cuts across this former flint work-

shop site, another part of which is exposed on the top and slope of the lake bank behind the marker. Here flint rejectage is also fairly abundant. From this place this site extends over on to the adjoining Buena Vista Park lots. On the lake edge of these lots flint chips and spalls are also quite numerous. The flint worked here by the Indian arrowsmiths was of white and light grey colors. A few light brown quartzite chips were also found. Since Indian days the lake has eaten away fifteen or more feet of the former lake bank opposite this site. Arrowpoints have been found in the water along its edge. Several other small flint chipping sites are indicated in gardens and on lots along the edge of the marsh in Fontana.

In former years traces of a former Indian corn field are reported to have been seen at the base of the high wooded hills about where the Quinn greenhouse is now located. Stones had been removed by the natives from this field to facilitate its cultivation. Doubtless this was not the only Indian planting ground in Fontana. Corn hills are said to have been formerly in evidence in the main part of the village on property now occupied by homes and streets. The Indians also had corn fields on Big Foot Prairie, four or more miles south of Geneva Lake.

The burying ground of Big Foot's village has not yet been found. A few isolated burials have been found at Fontana. One of these graves was disturbed in about the year 1897 when the home of Mr. Lot Conventry was constructed. Mr. Frank Featherstone has an elk antler one side of which bears blue markings, and which was obtained from an Indian grave on the site of Fontana.

23. *Big Foot Island Camp Site.* (NW $\frac{1}{4}$, Sec. 14)

Located in the middle of the Big Foot marsh at Fontana is a rather low and flat island occupied by a grove of oak trees. It is at least 300 by 300 feet in diameter. This island is elevated but very little above the surrounding cat-tail marsh. The marsh on its northern margin has been filled in with sand by the sand pump so that it may now be approached from the adjacent Fontana shore. Indian hearthstones burned and cracked in angular shapes, found in bare spots along the southern edge of this island, prob-



GEORGE SHAUNICK AND WIFE, ANNA WAH, PRAIRIE POTAWATOMI,
NEAR STONE LAKE, FOREST COUNTY, WISCONSIN.
Plate 6

ably indicate the former site of one or several wigwams. There are faint indications also of a former Indian garden at its southeastern edge. Several small, circular pits are probably former provision caches. One of these was about four feet deep with sides sloping downward.

Another former island, called Douglas Island, adjoins on the south the Big Foot Country Club golf course. It is a slightly elevated piece of land about 200 feet in diameter and has upon it a small grove of shagbark hickory trees. It is a part of the adjoining H. G. Douglas farm. It was in times of high water an island in the marsh which formerly extended beyond it for some distance to the present cultivated fields of this farm. Indians have occasionally camped on this island in past years. Owing to the high grass and brush no examination of its surface for Indian refuse could be made.

24. *Douglas Farm Site.* (SE $\frac{1}{4}$ Sec. 15)

Another Indian camp site was located on the Horace G. Douglas farm, on the western edge of the Big Foot marsh. The field where this site is located is east (across the highway) from the well-known Douglas Spring. It was not under cultivation at the time of our investigations and could not be examined. Mr. Joseph Robinson, caretaker on the Dr. G. Westgate place, on the south shore of Geneva Lake, informed us that about fifteen years ago he collected many flint points, a stone axe and other implements from a knoll on the edge of the marsh in this field. Mr. Douglas also reports the finding of many Indian artifacts here and elsewhere on his farm. On the edge of the marsh east of the spring the Potawatomi Indians had a corn field in pioneer days. This information he had from his father. A range of high hills or bluffs rises in the rear of the Douglas Spring and farm buildings.

25. *Big Foot Country Club Estates Site.* (SW $\frac{1}{4}$ sec. 14)

This fine woodland property lies along the southern edge of the Big Foot Marsh. We examined the elevated land along the marsh edge and climbed to the top of the high hills above. On a knoll near the Big Foot Country Club club-house hearthstones, a pebble hammer stone and flint chips and fragments were found. Other hearthstones were

obtained near the edge of the Shabbona Drive leading toward the club-house. It would be surprising if the Indians had not in former times camped in various places on the Estates' property. The land is largely under grass and low brush, this cover doubtless at present concealing other evidence of former occupation. In preparing the fairways of the Country Club property numerous flint points were found by the workmen.

26. *Glenwood Springs Site.* (SE $\frac{1}{4}$ Sec. 14)

This resort is located at the southwestern angle of Geneva Lake, the Big Foot Country Club Estates adjoining it on the west and Indian Hills on the east. The land rises gradually from rather low and level area at its western limits to more elevated land at its eastern boundary. It is today completely occupied by summer homes. The Fontana to Lake Geneva Road forms its southern boundary. Here at Glenwood the old Chicago trail approached the bank of Geneva Lake. A boulder marker bearing a bronze tablet erected by the Geneva Lake Historical Society marks the spot where Mrs. John H. Kinzie and her party obtained their first view of the Lake in 1831.

"The Old Indian Trail from the foot of Lake Michigan passed a short distance south of this point. From it the first white visitors, the Kinzie party from Chicago, saw the lake, May 1831."

This marker is located about 250 feet east of the Glenwood Springs Hotel, on the lawn of the B. B. Bell home.

When the early settlers came to the Lake a few Potawatomi were camping at Glenwood. Some are reported to have camped here as late as 1872. The former presence of at least one scaffold burial is reported. There are three springs at Glenwood, one on the lake shore in front of the hotel. Many flint points have been collected at Glenwood in past years. Some of these were collected by James Butts, the hotel keeper. Twelve points are imbedded in the mantel of the stone fireplaces of Mr. R. J. Marshall's summer home. Mr. Dell Crumb of Fontana has in a small collection of flint points some which were obtained at Glenwood.

27. *Indian Hills Camp Site.* (SE $\frac{1}{4}$ Sec. 14)

This new Geneva Lake subdivision occupies a fine woodland grove adjoining the Glenwood Springs on the west. In an examination of this property, which was crossed by the old Indian trail from Chicago, we found a considerable number of hearthstones, flint chips and fragments and a small leaf-shaped flint arrowpoint. These were obtained from a place where the soil had been disturbed on the edge of a knoll about thirty feet in the rear of the pavilion at the northwest corner of the property. Other fireplace stones were found at the edge of the road between this place and the northeast corner of the property, and others near the old well at the latter place. Doubtless many other evidences of Indian occupation lie hidden beneath the woodland sod at Indian Hills.

28. *Club Unique Camp Site.* (SE $\frac{1}{4}$ Sec. 14)

On this summer resort property, which adjoins Indian Hills on the east, a camp site occurs in a garden plot a short distance back from the lake shore. In this garden white flint chips and fragments, hearthstones and a small oval flint blank were found. Mr. Kroeckmister, the caretaker, has found a number of flint arrowpoints here and elsewhere on this property. He also has a quite large circular stone found here. The Club Unique property is a long, narrow tract of land. A brook flows through its eastern part to the Lake.

On the south side of the Fontana-Geneva Road, which bounds this resort property on the south, on the northeast corner of the farm of the late Edward E. Ayer, stands a boulder marker which marks the course of the Chicago Trail, which here crossed the road to Indian Hills. This marker was erected by the Geneva Lake Historical Society, and was unveiled on July 28, 1927. The bronze tablet bears the inscription:

"The old Indian trail from the foot of Lake Michigan to Lake Geneva and on to the 'Four Lakes' at Madison—part of a primitive system that practically crossed the continent—passed here."

On the bank of a brook flowing through this woodland and near the above mentioned trail flint chips and frag-

ments were found. Doubtless the camp site extended at least this far into the grove.

29. *Edward E. Ayer Camp Site.* (Fract. Sec. 13)

On the summer residence property of the late Mr. Edward E. Ayer (Fair Oaks) an Indian camp site was located on land now in use as a vegetable garden. During his life time, Mr. Ayer, and Mr. Henry Tallman, the caretaker of the Ayer's Estate, both collected many Indian stone implements here and elsewhere on the property. This garden was under cultivation and no careful examination of it could be made.

Mr. Tallman's collection, made on the Ayer Estate property, consisted of the following implements and materials:

- 6 Blanks, leaf-shaped. Five made of grey, one of white and one of red flint.
- 11 Arrowpoints, stemmed. Five made of buff, 4 of grey, and one each of flesh-colored and of reddish flint.
- 10 Arrowpoints, notched. Made of white, grey and flesh-colored flint.
- 1 Arrowpoint, barbed, broken. Made of red flint.
- 1 Spearpoint. Made of blue hornstone.
- 1 Perforator, stemmed. Made of white flint.
- 1 Perforator, pointed white flint flake.
- 2 Scrapers, flake. Made of grey flint.
- 4 Points, broken. White and grey flint.
- 3 Native float copper. Two small lumps and one flat piece. Two grooved stone axes have also been found on this site.

The late Mr. Edward E. Ayer was greatly interested in Indian archeology, ethnology and history. He was one of the founders of the Field Museum of Natural History at Chicago. A collection of Indian materials which he presented is included in its collections. His collection of Indian manuscripts, maps, etc., is preserved in the Crerar Library.

LINN TOWNSHIP

30. *Rainbow Bay Camp Site.* (NW $\frac{1}{4}$ Sec. 18)

On the J. D. and E. A. Crumb property on Rainbow Bay an Indian camp site is located on a small piece of plowed

ground near the lake shore. Here fire-cracked stones and flint rejectage of the flint worker are as numerous as on any site of similar extent on this shore of Geneva Lake. The flint worked here was several kinds—1. Pure white, 2. White to greyish white, 3. White and flesh-colored, 4. White and tan-colored. Nos. 2 and 3 were the most numerous. From this site, which appears to have been the former location of a single wigwam, several broken flint blanks and a broken arrow or spearpoints were also recovered. Fragments of cord-marked pottery are reported to have been found when this garden was under cultivation.

Two brooks flow to the lake near the eastern boundary of this land.

A short distance east of this site and between it and the Hotel Minier property is a small point now occupied by a fine lawn. In the flower beds at the lake margin of this lawn several hearthstones and a few flint chips were found. Arrow points have been found here. Very likely another wigwam site is here hidden by the lawn grass.

31. *Chicago Club Site.* (NE $\frac{1}{4}$ Sec. 18)

On this property a small lawn area in front of the club house was being prepared at the time of our first visit to the property. A number of chips and fragments of white and grey flint lay on its surface. The fireplace stones had been raked up and carried away. Frank Hoyt, caretaker on the Chicago Club grounds, has been an active collector of Indian implements. He has collected hundreds of flint points, also a number of stone axes and celts. His collection had been given to a daughter of Mr. George Huff. We were not able to see it. Many of his specimens were found on the Club grounds in preparing lawns and while engaged in other work.

32. *Northwestern Military and Naval Academy Mound Group.* (NE $\frac{1}{4}$ Sec. 18)

In a grove on the Geneva Lake shore in the northeastern part of the grounds (the camp ground) and adjoining the parade ground of the Northwestern Military and Naval Academy, is a group of Indian mounds. These are strung out in a more or less straggling line, the mound farthest east being within about 30 feet of the bank of Sugar Creek,

a small stream which flows from the south, from the woodland south of the Fontana-Geneva Road, through the Academy grounds. Of the existence of these mounds there has been no previous state record.

Mound No. 1, a fine conical earthwork, is located between the lake shore path and the lake bank. It is a short distance northwest of Col. R. T. Davidson's residence. This mound was the best preserved mound of the group being about $3\frac{1}{2}$ feet high and 21 x 23 feet in diameter at its base. It was overgrown with tall grass and weeds. Mound No. 2 is about 325 feet east of the last. Its height was 2 feet and its diameter 18 x 19 feet. Its northern edge is within about 6 feet of the top of the lake bank. Mound No. 3 is about 2 feet high and 18 feet in diameter. It lies about 15 feet west of No. 2. Mound No. 4 is 12 feet west of the last. Its height is about 3 feet and its diameter 12 x 15 feet. Its northern edge is about 18 feet from the top of the lake bank. Fifty feet southwest of this mound is No. 5, a mutilated earthwork. It was probably originally about 15 feet in diameter and several feet high. Mounds Nos. 3, 4 and 5 all showed signs of having been dug into. We learned that some or all of these mounds had been excavated by Mr. Arthur Kaye about thirty years ago when this land formed a part of his property. His digging, as far as known, was not fruitful of any results in either specimens or burials.

Mound No. 2, which appeared not to have been previously disturbed, we excavated with the assistance of Dr. Paul B. Jenkins. It was found to have been constructed of clayey soil similar to that beneath the top soil of the surrounding land. The single burial found in this mound was a flexed or folded skeleton lying just beneath the natural surface of the ground upon which the mound was constructed. It had been deposited near the center of the mound, its skull being within $10\frac{1}{2}$ feet of the western and $11\frac{1}{2}$ feet of the eastern edge of the mound. The skull lay on its right side facing the southeast, the bones of the body extending to the northeast. Its arms and its legs were both folded upward from the elbows and the knees. Above this skeleton was an irregular patch of whitish clay by means of which it was located. Bits of charcoal were found among the bones of the skeleton.

A small bed or deposit of charcoal about 14 inches in length, 6 inches wide and $1\frac{1}{2}$ inches in depth, evidently the remains of a small fire, was found at a distance of 27 inches southwest of the skull. It was on the same level as the burial. This was also imbedded in and surrounded with a patch of whitish clay as if it had been covered with this soil after the fire had burned out.

The skull and bones of this skeleton were in a fair state of preservation. The skull is of small size, the teeth well worn. The remains appear to be those of an Indian, as nearly as can be determined between 35 and 50 years of age.

The excavation of Mound No. 1 was next undertaken. After a small amount of digging it became evident that this mound had been dug into at some time in the past and the hole afterwards filled in with earth and a number of large stones. The mound was, however, re-excavated and found to be constructed of dark-colored soil, probably obtained from the nearby creek bank. If there had been a burial or burials these had been removed and no trace of them remained. Bits of charcoal, a few flint chips and a small notched flint arrowpoint were found.

At the southwestern side of the mound the clay floor was uneven, a portion of the hard clay projecting upward and being removed with difficulty. Imbedded in the floor of the mound near its eastern edge were the bones of a small mammal.

The presence of hearthstones and flint chips in bare spots and the path along the lake shore and in the camp ground grove indicates the presence of a former Indian camp site among and beyond the mounds. The chips were all of white flint. Indian arrowpoints are reported to have been found in the Academy gardens and in the digging of practice trenches by the cadets of the school.

The brook which flows through the Academy grounds has its source in a spring located in a woodland south of the Lake Geneva road. A fork of this stream rises in a spring on the adjoining Kaye Estate lands. Another brook flows to the lake at the western limits of the Academy grounds.

33. *Kaye Camp Site and Mound.* (NW $\frac{1}{4}$ Sec. 17)

The lands of the Arthur Kaye Estate adjoin on the east the property of the Northwestern Military and Naval Academy. This was the site of the famous "Kaye's Park", opened in the early seventies, and which became a popular resort for summer visitors to Geneva Lake. Here units of the Wisconsin and Illinois Militia held encampments. Their drills and sham battles drew great crowds. The Wyant Museum located here with its collection of curios was another attraction of former days. All of the old hotel building except the dining hall at its rear has now been removed.

The woodlands in the rear of the old hotel site are covered with a fine maple forest where maple sugar is still made every spring. This is a second growth forest, the original trees being long gone. Here the Potawatomi are reported to have also made maple sugar in early days. Their name for a sugar bush is ses-ba-kto-kon, or place where maple sugar is made.

Where the northeast corner of the old hotel porch was is a remnant, about two-thirds, of a former oval mound, which was formerly about 18 by 21 feet in diameter. On its eastern end stands an oak tree about $2\frac{3}{4}$ feet in diameter and estimated as between 80 and 100 years old. The mound is about 66 feet from the bank of the lake, which is here about 15 feet high. This mutilated earthwork we desired to excavate and to afterwards restore but permission to do so could not be obtained.

A small fragment of Indian pottery and flint flakes were found near the mound where other indications of a camp site are hidden beneath the sod. Flint points have been found here at different times.

Mr. Frank E. Warner, an employee of the Kaye family, has a collection of Indian flint implements found on the Kaye property. These include 11 blanks, 2 leaf-shaped arrowpoints, 2 triangular points, 10 stemmed points, 51 notched points, and one barbed point, also 6 stemmed and 14 notched flint spearpoints. There are 10 broken arrow and spearpoints, a fine large flint scraper, 3 flint perforators, and a small flint knife. The greater part of these implements are made of white flint, a few of grey, light brown, flesh, red, and orange-colored flint. The largest of the

spearpoints, a stemmed specimen, is made of white flint and is 5 inches in length. A grooved stone axe was found in a crotch of a white oak tree. It is grooved on three sides its blade much shortened by re-sharpening.

A camp site is also found on the L. A. Hippaka farm south of the Fontana-Lake Geneva Road and adjoining the Kaye lands. Flint rejectage and hearthstones are found here along the course of a brook, a tributary of Sugar Creek.

34. *Water Hole.* (S $\frac{1}{2}$ Sec. 17)

Mr. W. J. Thompson reported that on his farm, directly in the rear of the orchard behind his house was a "willow hole," or water hole, which he drained in 1917 and which is now in use as a pasture.

In laying the drain tile many flint arrows were found in and about this depression which was a place where in Indian days deer came to drink. Many flint points have been found elsewhere on this farm.

35. *Black Point Site.* (SE $\frac{1}{4}$ Fract. Sec. 8)

This is the prominent pine-wooded point on the south shore of Lake Geneva, the beautiful property of the Conrad Seipp Estate. Indian groups are reported to have camped here in early days. We made several visits to this property but were unable to obtain any specimens or other material which furnished evidence of this. A Potawatomi name for the Point is given elsewhere in this publication.

Dr. O. L. Schmidt reports the finding of flint arrowpoints and other artifacts on the banks of a small creek, now often dry, on Mrs. Madlener's summer residence property, directly west of the Seipp Estate. This is very likely a camp site. It is about two or three hundred feet from the Lake.

36. *The Birches Camp Site.* (E $\frac{1}{2}$ Sec. 9)

This site is located on The Birches Subdivision, the former Otto Young farm, on Long Point. The land east of Lighbody Creek, which flows through the middle of this extensive property has been laid out into lots and is being sold for summer homes. At the mouth of the creek is a small marshy area known as the Upper Duck Hole. The Indians who formerly camped here referred to it by the name of Ji-shib-pag-wan-i-kan, to designate a place where

ducks gather in a marsh. The property takes its name from the birch trees, twisted and stunted, which grow along the slope of its high lake banks. The top of the bank is from 6 to 30 feet above the water. This land once cultivated was grass-grown when we visited this locality. Flint chips and hearthstones were found in a small parked area on the highland east of the creek. Here grow a number of scattered oak trees. This land has in years past yielded a considerable number of flint and other stone implements.

Some doubtful Indian mounds, four in number and greatly disturbed and mutilated, are located on the high land east of the creek. We were unable to obtain permission to excavate these.

In the fifties or earlier Potawatomi Indian families occasionally camped on this property on both banks of Lighbody Creek. The creek is a fine, clear stream with a gravelly bottom. In the marsh are cat-tails and bur reeds.

An Indian trail passed over the front of this property on top of the high lake bank. The land west of the creek has growing on it a fine woodland.

37. *Meyers' Workshop Site.* (SW $\frac{1}{4}$ Sec. 11)

Flint chips and spalls and fireplace stones were quite common in a rose garden on the east bank of a brook, on the Louis E. Meyers' property, on the south shore of Geneva Lake, adjoining the Lake Geneva Beach property. The flint worked here in arrowmaking was of white, gray and reddish colors. The lake shore at this site is low and level the lake bank being only about three feet above the water. The banks of the brook have been very attractively walled with boulders. The brook is crossed by a small bridge having a flag-stone floor.

Another brook flows through a woodland at the western boundary of this property. Beyond this point the shoreline is low and marshy with finally a large marsh near the Geneva Country Club golf course. In the rear of this marsh is a fine oak forest. The South Shore settlement of summer homes is also nearby.

38. *Wooddale Camp Sites.* (Secs. 11 & 14)

At the western limits of the Wooddale subdivision, on the Fontana-Lake Geneva Road, a brook (Twin Brook) flows

toward the lake through a small valley. On the west side of this brook, on the William Rader farm a camp site is indicated in a cultivated field. Flint rejects, a stone ball and hearthstones were found here. The site has yielded many arrowpoints.

Another camp site is situated on the west side of the brook at a distance of a city block south of the road from which it was separated by a strip of grassy pasture land. Other fields on the east side of the brook were under sod and not in condition for an examination.

39. *Button Camp Site.* (NW $\frac{1}{4}$ Sec. 12)

A camp site was located on the A. N. Button property on the shore of Buttons Bay, also known as Gipsy Bay. On these beautiful grounds flint chips and fragments were quite plentiful by the side of the lake shore path. A fine spring brook here flows into the lake. This spot is elevated from 10 to 12 feet above the lake, and adjoins the Van Dyke Camp grounds. Similar indications were found on the land on the west side of the brook.

The Potawatomi name for this locality is given as A-si-juk. The Indians in former days dug for clam shells in the mud or sand bottom of the Bay. These were cooked for food. They were also dried for future use, they were tough but nourishing. The shells were cut up for the making of beads and ornaments. Valves or bits of these are found on some camp sites about Geneva Lake.

A stream which has its source in the southeast quarter of Section 12, a mile south, flows into Gipsy Bay at about its middle. Along this stream near the Bay is a considerable marshy area. On the north side of the Bay is Ceylon Point. The land along the shore from this point northward to the city of Lake Geneva, a distance of about a mile is also occupied by beautiful estates. On these lands the Potawatomi also frequently camped in former days. Of this, however, we were unable to discover any archeological evidence.

LAKE COMO INDIAN HISTORY AND REMAINS

GENEVA TOWNSHIP

40. *East Shore Camp Site.* (SE $\frac{1}{4}$ Sec. 23)

This site is located at the eastern end of the Lake Como marsh. It is on cultivated land elevated from 15 to 20 feet above the Lake Geneva to Elkhorn Road and a road leading north. In this field most of the evidence of former Indian occupation was found to occur in a limited area on a rise of ground overlooking the Geneva Road.

During several visits made to this site we succeeded in collecting a leaf-shaped blank made of reddish flint and one made of grey and white flint, a notched arrowpoint made of flesh-colored flint, a number of white flint nodules, and a considerable quantity of chips, flakes and fragments of white, grey and white, flesh-colored, and brown-speckled white flint. Numerous hearthstones were scattered over the small area in which these were found. Diligent search and digging in likely spots failed to find any fragments of earthenware vessels. It is likely that this is the site of a single wigwam.

The old marsh bed at this eastern end of Lake Como is now under cultivation as a truck farm. Indian arrowpoints, probably lost in hunting on the marsh, have frequently been found on this farm.

41. *Elkhorn Road Camp Site.* (SE $\frac{1}{4}$ Sec. 23)

This site is located on the northeast shore of the Lake Como marsh north of the Geneva to Elkhorn Road and the old Geneva to Elkhorn electric line right-of-way. This land, now in use as a truck farm, rises gradually from the edge of the marsh.

On this camp ground most of the evidence of former Indian habitation occurs on a knoll overlooking a spring brook (now a drainage ditch) below. On this site, from which many flint and other implements have been collected, the refuse of the Indian arrowmaker is quite plentiful on the surface of the ground and for some inches below it. Hearthstones of fist size and smaller are scattered over the ground. White flint nodules, spalls, chips and flakes

are the most common of the several varieties of flint worked on this site. Grey, flesh-colored, red-speckled white and tan-colored flint fragments, spalls and chips are less common.

A pebble hammer stone found here has one end broken off. The center and edges show marks of its use. Another hammer is irregularly square in form, the center and one face being deeply abraded by use.

This camp site extends to the land on the east side of the creek, also to the fields on the west side of the nearby road.

Mr. T. G. McDonald reported that a group of Potawatomi camped on this site in 1865. They came to hunt and fish. On its western part he found a large, broad curved iron blade having a short handle and nearly two feet in length. It appears to be a fur-trading days' implement.

42. *Creek Camp Site.* (S 1½ Sec. 23)

A small camp site is located on the west bank of Como creek on the south side of the road leading from Lake Geneva to Spring Prairie, in a cultivated field of the Slavin farm. Fireplace stones, flint chips and a flint nodule were found scattered over a small area not far from the highway. The flint worked here is of a bluish-white color. This was probably the site of a single Indian wigwam.

Flint chips were also found in one spot on the cultivated field of the Woldenburg farm on the opposite (east) side of the creek. These fields are elevated but little above the creek.

43. *Highlands Camp Site.* (Sec. 27)

A camp site is located in a cultivated field adjoining on the east Lake Como Highlands, the Chicago Evening Post Subdivision. It is on the southern slope of a corn field east of the Aspen Road. Hearthstones, a broken white flint blank and flint chips were obtained here. This camp site is on the western edge of a small drain through which the surface waters flow from a marshy area north of the Geneva to Elkhorn road to the Lake Como marsh.

The flint used here, in the making of arrows and other flint implements was of white and flesh colors. White flint nodules were among this flint waste,

On the end of a wooded point east of this site were several storage pits or caches. These were about $3\frac{1}{2}$ feet in diameter and appeared to extend down into the soil for about the same depth and to be about as wide at the base as at the top. Both were filled with earth. A few Potawatomi Indians camped on this point in early days.

Another wigwam site is indicated by the presence of fire-cracked stones and flint chips and fragments in a field on the north side of the Geneva to Elkhorn road. These remains are found near the center and east side of this field which fronts to the north on a large marsh area, an arm or extension of the Lake Como marsh which the highway crosses east of this field. A part of the Lake Como Highlands Subdivision adjoins this field on the west. The field itself is across the road from the Aspen Road site above described.

44. *Como Beach Camp Site.* (SE $\frac{1}{4}$ Sec. 29)

This site is located on the W. Curtiss farm which adjoins Como Beach Subdivision on the west. The best part of this site is on a low north and south knoll in about the center of this otherwise very level field which slopes gradually from the low shoreline northward to a woodland. A fringe of tall willow, oak and poplar trees extends along this shore.

On the before mentioned knoll are the usual indications of a camp site—hearthstones and flint refuse. Nine white and grey flint blanks, broken white and grey flint arrowpoints, white flint nodules and chips and fragments of white, grey and flesh-colored flint were found. A grooved stone axe, flint arrowpoints and knives have also been found here.

Mr. Andrew McKaig, an old settler of this locality, states that in 1859 a group of Potawatomi camped on this farm but were driven away by the owners. There were years ago traces of a former Indian planting ground on this farm. It was within 20 rods of the lake shore and about an acre in extent. It has since grown up to brush and trees.

No sites were found on the lake shore property of the Como Beach Subdivision the land being everywhere covered with trees and grass.

45. *Grady Village Site.* (S 1½ Sec. 29)

Indications of a former Indian village site appear to extend over the entire lake front fields of the Grady farm on the northwest shore of Lake Como. On these fields the curved and angular stones from lodge fireplaces and flint rejectage are found in a number of places and are becoming more and more scattered by the plow and harrow.

We collected here chips, spalls and fragments of white flint, two blanks of the same material a small stemmed arrowpoint and the base of another, also white flint, grey and flesh-colored flint chips, and an oval stone ball, 2 by 2½ inches in diameter. In Lake Geneva and in Delavan we heard this site spoken of as a good collecting ground and we saw a small grooved stone axe, a stone celt and a number of flint arrowpoints which had been collected here in past years.

The soil of these fields is very black and the fields themselves are not much elevated above the lake shore. A brook flows through them to the lake.

This site is one of the places on the north shore of Lake Como where up to comparatively recent years wandering Potawatomi Indians occasionally erected a wigwam.

46. *Crane Farms Sites.* (Sec. 32)

At the western end of Lake Como are the Crane farms. There are here elevated lands favorable in former days for Indian occupation. These were covered during our investigations with tall grass and alfalfa so that there was no opportunity for the locating of Indian remains. Two spring brooks flowing through small valleys enter the Lake Como marsh at its northwest corner. There are a number of fine springs.

Many flint and other implements are reported to have been gathered by collectors on the fields of this farm in recent years.

The Children's Camp buildings are located on a narrow point with a small valley on the west and a ravine on the east side. In front of the camp buildings we found hearthstones which had been unearthed during the improvement of the lawns. An Indian wigwam was probably once located here. In the ravine is a fine spring and flint chips

and fragments were found on the high land north of the spring.

Beyond the camp is a woodland and east of this the Grady site.

47. *Brillo Camp Site.* (SE $\frac{1}{4}$ Sec. 31)

A camp site is indicated in a small cultivated field on a hill overlooking the southwest margin of the Lake Como marsh. This field is elevated at least 40 feet above the marsh and the C. & N. W. R. R. tracks below. It is at least 300 feet from the marsh from which it is separated by a grass-covered hillside slope. A spring is located in a pasture 40 feet to the northeast. Hearthstones, white flint chips and spalls are found in the northeast corner of this cultivated field. White flint nodules, some of them fractured were also found. The site is likely that of a single wigwam. The nearest open water of Lake Como was in 1927 nearly three-fourths of a mile away to the northeast.

The Indian burying ground found on the Harris property west of this site has been described in the Lake Geneva section of this report.

48. *Duck Hunters Point Site.* (SE $\frac{1}{4}$ Sec. 32)

North of the site on the Brillo property, across a small tract of land which was overgrown with tall grass, an elevated point projects into the Lake Como marsh. Its top is at least 25 feet above the marsh, and was overgrown with wild sunflowers, resin weed, polar plant, bergamot, Jersey tea and other wild flowers. There are about a dozen very young trees also on its top. Several small circular depressions on this surface are probably former Indian provision caches. This point is at the eastern limits of the Crane farms. Indian hunters are reported to have formerly occasionally camped here. When the grass and wild growth on this point are disturbed various indications of Indian occupation are very likely to be found.

49. *Williams Bay Road Site.*

A wigwam site is located in a small cultivated field about 100 feet south of the junction of Highway 36 (Williams Bay Road) and Highway 50. The field is on the east side of the road. In its rear is a fine woodland grove with picturesque knolls and kettle holes.



STONE GORGET.
Fontana, Lake Geneva.
Length 5 inches.
Plate 7

Hearthstones, blue and white flint nodules, a stone ball and white flint chips and spalls were found. Flint arrowpoints and a stone axe have been collected here.

This place is at least one-fourth mile south of the Lake Como marsh. When the land on which the grove is located is disturbed, indications of former Indian occupancy will very likely be discovered.

50. *Krause Farm Camp Site.* (SE $\frac{1}{4}$ Sec. 32)

On the G. A. Krause farm a camp site is located in a cultivated field overlooking the Lake Como marsh. This field is elevated some 70 or 80 feet above the marshes, with a ravine running along its southeastern border from the Lake Geneva to Williams Bay Road (Highway 36). It is a short distance southeast of the Krause farm buildings.

Indications of aboriginal occupation in this field consisted of scattered hearthstones, chips and fragments of white flint, a flint pecking hammer and a broken flint point.

Some flint arrowpoints have been picked up here by Lake Geneva collectors.

Other favorable locations in the fields north and east of this site were in crops and in pasture and thus in no condition for examination.

Some Indian mounds were reported to have been formerly located in the fields near the Lake Como shore but no trace of these could be found.

51. *Kelly Farm Camp Site.* (SE $\frac{1}{4}$ Sec. 28)

On the Kelly farm on the south shore of Lake Como scattered fireplace stones indicate the probable former location of an Indian wigwam in a cultivated field near the lake shore. No indications of flint working were found and it is likely that this was the site of a recent Indian habitation. Some arrowpoints have been picked up elsewhere in this field. A strip of pasture land and a road leading down to the lake separates this field from the western limits of the S. B. Chapin Como farm.

52. *Chapin Como Farm Village Site.* (S $\frac{1}{2}$ Sec. 27) Ses-ba-kto-kon.

The fine farm of Mr. S. B. Chapin, a broad expanse of cultivated fields and dark woodlands, extends along the south-

ern shore of Lake Como for a full mile. At the western end of the Chapin farm the fields, both north and south of the lake shore road, called the Chapin Road, are nearly all under cultivation. Indications of a former Indian village site of considerable extent are found in various places in these fields, and these were, we are reliably informed, much more apparent in years past than they are today. The Chapin site is the richest in Indian materials as yet known on the shores of Lake Como. Hundred of implements have been collected here by Mr. Thomas McDonald, Mr. Jack Christopher, Mr. Henry Hammersley, Mr. A. W. Wiggins and others interested in making archeological collections. A rough estimate of the total number of specimens of flint arrow and spearpoints, scrapers, knives, perforators, hammerstones, balls, celts, axes and other implements, pipes and ornaments found on the Chapin fields in the past fifty years places their number in the neighborhood of three thousand. It is quite certain, judging from the experiences of present collectors, that many more remain to be recovered.

In the course of our examinations of the fields of the Chapin farm we found the most westerly of the old Indian habitation sites on the property to be in a field north of the Chapin Road at the western limits of the farm. Here the location of a former wigwam was plainly indicated by the presence of a considerable number of fireplace stones, chips, spalls, fragments and nodules of white flint, a flint Indian-made gun-flint, the tip of a broken arrowpoint and an oval stone, the latter probably a club-head. This place is near the southern edge of the field at a distance of a city block from the Lake Como shore and C. & N. W. railroad track.

Indications of another dwelling site occur near the northern edge of an adjoining cultivated field, south of the Chapin Road. The refuse flint is like that of the other site but more scattered and not so abundant.

A small tract of woodland separates these western fields from those lying east of them. From nearly every part of these last mentioned fields numerous Indian implements have been gathered. These fields lie north of the farm home of Mr. A. W. Wiggins, the manager of the Chapin

farm. During the greater part of the time of our investigations about the Geneva Lake these fields were occupied by corn fields. A wigwam site is indicated in the north-west corner of one of these fields on land slightly elevated above the surrounding area. This place is not more than a half block south of the lake shore. Near it, at the edge of the small woodland tract mentioned is a small wet area, possibly the site of a spring. Here we found groups of the usual hearthstones, somewhat scattered by the plow and harrow, white flint rejectage, a pebble hammer stone and a broken white flint stemmed arrowpoint. A short distance east of this spot a few hearthstones and flint chips were found, possibly the site of a second wigwam. At least one other such site occurs between here and the eastern edge of this field. At this edge of the field is the richest part of the village site. Here the evidences of former Indian occupation are on the slightly elevated land lying near and above the bed of a small brook or water run which is on the eastern edge of this field. The knoll is elevated from 10 to 15 feet above it.

Groups of hearthstones, separated from each other by short distances, indicate the former location of at least two wigwams here. Here were collected three pebble hammer stones, a stone celt, unfinished and $5\frac{7}{8}$ inches in length (fashioned by percussion), a flake knife made of white flint and chipped along one edge, a scraper made of rosy flint, part of a white flint blank, one notched and two stemmed arrowpoints, and parts of several broken points, all of them made of white flint.

Flakes and spalls of white and rosy pink flint were quite numerous. Of special interest to us were the quite large number of white flint nodules lying on or imbedded in the surface of the ground, some of which were entire and others broken. Some showed signs of use as pecking hammers. These nodules must have been brought to this place from some gravel-knoll source where they occur.

Flint points are also found on the cultivated field on the south side of the Chapin Road. Because of the corn crop we were unable to locate any workshop or wigwam sites there. This site also extends into the field lying east of our wigwam sites. It was occupied by a fine crop of al-

falfa at the time of our visits and could not be carefully examined except at its extreme eastern end where hearth-stones and flint chips and spalls were found in the part near the C. & N. W. R. R. right-of-way.

Mr. Thomas McDonald has collected hundreds of flint implements of all classes from the fields of the Chapin farm. He broke up the soil of some of the present fields in the years 1879 and 1880 and put them under cultivation. He has also collected here during his years on the farm a number of stone axes and celts, a native copper axe and spearpoints, Indian trade kettles, quantities of potsherds and other Indian artifacts. Some of these are in Mr. J. Christopher's collection. Mr. McDonald has retained some fifty flint implements most of which were collected here. Among these is a white flint knife 4 inches in length and a large spearpoint of the same material. Most of his triangular, stemmed and notched arrowpoints are made of white flint, a few of grey and red flint. Mr. Christopher has a perforated slate gorget collected here. Mr. McDonald informed us that pieces of decomposed clam shell valves were formerly scattered over several small areas in the Chapin fields. These probably indicated, as they often do, the presence of refuse pits. Some of these were also found by ourselves but test digging near the wigwam sites failed to locate them.

Recently a Mr. Conley, employed on the Chapin farm, has collected as many as ten flint arrowpoints in a single day in cultivating these fields. The son of Mr. Wiggins has in his small collection the blade of a white flint knife, two flint blanks, a white flint barbed spearpoint, a small triangular point, and a number of stemmed and notched points made of white, grey and red flint. Mrs. Elizabeth Chapin Patterson also has some flint points found here. In building the Wiggins farm house a number of arrowpoints were found.

A single small mound was found near the top of a slope in a small level area in the east field of the Chapin farm, at a distance of about 275 feet southwest of its northeast corner and about 250 feet south of the railroad track, which runs along the northern edge of this field and between it and the Lake Como shore. This mound was oval in form

26 $\frac{3}{4}$ feet in length, 9 $\frac{1}{2}$ feet in width near its western end, 9 feet 7 inches in width at its middle and 8 $\frac{1}{2}$ feet in width near its eastern end. It was about 11 $\frac{1}{2}$ feet high at its middle. It was constructed of a 4 to 6 inch deposit of black soil placed on the top of a 12 to 15 inch deposit of yellow clay. This was placed on a floor of clay and gravel, the natural surface of the soil.

This mound we excavated. Near its eastern end we found buried in the clay layer an irregularly placed heap of large stones, possibly a rude altar. Near its center was a small bed of charcoal and ashes and near at hand several burned stones and a small broken stemmed flint arrowpoint. About midway between this and the eastern end of the earthwork a single oval stone ball was found. There were no traces of an interment.

We were repeatedly taken to see and informed of the location of supposed mounds in the woodlands and in other places on the Chapin property between this point and the head (eastern end) of Lake Como but all of these proved to be tree falls or other natural formations.

There was a planting ground connected with the village or camps on the Chapin farm. This site, about half-an-acre in extent, is located on the western edge of the Chapin maple woods which is at the eastern end of the farm fields. It is about 400 feet southeast of the mound which we excavated. This Indian garden was a clearing in the forest when Mr. McDonald began farming on this land. It is a piece of level ground with a spring brook flowing toward the lake through the forest near its eastern edge. As no corn hills were in evidence at the time when this aboriginal garden plot was first seen it is very likely that other Indian vegetable products such as beans, squash and gourds, and perhaps even melons, were grown here. At the northern part of this small field we found fireplace stones on the surface of the ground, and dislodged others from just beneath it. This would appear to indicate that the Indian owner of the garden had his wigwam home here. The Indian fields needed constant watching, the wild animals of the forest being always ready to eat or destroy their products. Another small planting ground is reported to have been located in the northwest field of the Chapin farm. In the

maple forest above mentioned the Indian inhabitants of this village very probably made maple sugar. Old scars on the trunks of some of the maples noted by old settlers of the Geneva Lake region would indicate this. Beyond this woodland other woodlands and fields of the Chapin farm extend eastward for a considerable distance to near the eastern end of Lake Como. If the soil in these is ever disturbed it is more than likely that evidence of other former camps, or of an extension of the village site described, will be found. These woods and pastures we examined as carefully as possible but without results of archeological interest.

Our present knowledge of the Chapin farm indicates that it was the site of an aboriginal village for a quite considerable period of time. Its small number of wigwams were scattered over about a quarter of a mile of land at least.

The finding of Indian trade kettles and a few pieces of kettle metal, several gun-flints, and a few glass trade beads would indicate that Indians continued to camp here after contact with white traders had been made. We were unable to ourselves find any potsherds on this site. The several pottery fragments which we were shown were all ornamented with twisted cord patterns. These and some other articles found here such as a perforated slate gorget, several native copper artifacts and certain forms of arrow and spearpoints, seem to show that this is an Algonquian site, probably Potawatomi. The burial place of this site has not been found nor have any solitary burials been reported. This cemetery (it would seem that there must have been one) awaits discovery.

The Potawatomi name for a sugarbush camp is Ses-ba-kto-kon, a name said to have been applied to this locality.

Fairbank Cache

An employee of the Tavender place on the north shore of Geneva Lake informed us that about ten years ago a cache or nest of many flint blades was found on the former N. K. Fairbank farm on the shore of Lake Como. The blades were of a light colored flint and all of about the same size. No further details of this cache were obtainable.

Elsewhere in this report mention is made of the finding of similar small deposits of flint implements on other sites on the shores of Geneva Lakes.

This was the common aboriginal method (burying it) of preserving for future use in implement manufacture flint blanks in leaf-shaped forms obtained from often distant flint quarries or other sources. Such hoards were also sometimes secreted beneath rocks or at the roots of trees.

53. *Wilson Camp Sites.* (NW $\frac{1}{4}$ Sec. 36)

Hearthstones, white flint nodules and chips and fragments of the same material occur in cultivated fields on a high hillside on the Wilson Brothers farm overlooking the Lake Como marsh at the southeast side of the lake. Above these fields the land rises to two high, grass-covered hill-tops, one bare of trees and the other with a few oak trees on its crest. A spring is located in a wooded pasture a short distance southwest of this site.

In a small cultivated field about 400 feet west of the above mentioned site and elevated at its northern edge about 15 feet above Lake Como is another camp site. Scattered over a small area in this end of the field are chips and spalls of white and of flesh-colored flint. Hearthstones lie among this refuse, the flint fragments and burned stones furnishing evidence of the probable former location of the former wigwam home. Near the southern edge of the same field a hundred or more feet distant from this site scattered flint refuse of the same character is found. One of the interesting specimens found here is a white flint flake about one inch in length one edge of which is provided with tiny teeth possibly intended for use as a saw. A well made white flint notched arrowpoint was also found. A considerable number of flint arrowpoints have been collected by local collectors from the fields on the Wilson farm.

A brook flows through the eastern edge of this site on its way to the lake. The railroad track of the C. & N. W. R. R. passes along its northern edge. At its western boundary is a tract of woodland.

LAKE GENEVA COLLECTIONS

From the Indian camp and village sites and cultivated fields about Lakes Geneva and Como a very large number of Indian implements have been collected in the past ninety years, since white settlers first came to the lake and began the cutting down of the forest and the breaking up of soil for the planting of crops. It is unfortunate that only a comparatively small amount of the Indian material collected about the lakes has remained in the vicinity and is still available for study purposes. In recent years many collections of archeological material and many choice specimens have been disposed of to visitors to the lake and these are now scattered far and wide through various states.

Frederick S. Perkins, the once well-known antiquarian and artist of Burlington, Wisconsin, was one of the first to know that many interesting Indian artifacts were being recovered from the fields about the Geneva lakes and surrounding parts of Walworth County. He made frequent visits to the region to acquire these specimens and was successful in securing a quite large number of them from the original finders. One of the several large collections which he made later became the property of the State Historical Society and is in the State Historical Museum at Madison. In this collection there are 4 stone celts, 12 grooved stone axes, 2 stone balls, a slate gorget and a copper knife and flint arrow and spearpoints from Geneva Township, and 2 grooved axes, 2 celts and flint spearpoints collected in Linn Township. Other collections made by Mr. Perkins are in the Historical Museum at St. Paul, in the Milwaukee Public Museum, and in other museums and collections. All contain some Geneva Lakes region specimens. In the museum are also other implements from this region.

In collecting archeological specimens about the Geneva lakes in recent years there have been particularly active Mr. Lambert Lindquist, Mr. Frank Warner, Mr. Frank Hoyt, Mr. T. J. McDonald, Mr. Henry Hammersley, Mr. Henry Tallman and Mr. J. Christopher. Many other residents of the region have small collections ranging in size from a few arrowpoints to a half hundred or more specimens of various classes. Nearly all of these have been ex-

amined and some are mentioned elsewhere in this report. A frame of about 150 flint arrow and spearpoints, and including also a notched flint scraper and a perforator, all are made of light gray and light brown chert is owned by Mr. F. S. Moore of Lake Geneva. This collection he states, was made years ago by a man engaged in hunting and trapping about the lake. Some Geneva artifacts are included in collections at Elkhorn, Delavan and Walworth.

An interesting collection made by Mr. Lindquist from local sites has recently been purchased and presented by Mrs. Marquette A. Healy and is on exhibition in a case in the public library at Williams Bay. To this collection other specimens have been added by gift and deposit.

It is now very desirable that this collection become the nucleus of a historical museum to be founded here.

The material collected during our investigations has been placed in the care of the Geneva Lake Historical Society.

Some of the sites about the Geneva lakes from which considerable quantities of Indian implements have been collected in years past are now apparently exhausted or nearly so, many other sites are practically obliterated by the erection upon them of buildings and the preparation of lawns, shrubbery and tree plantings. It is very desirable that as much as possible of the archeological material now in local hands and all that may be obtained in the future should find its way into the care and safe-keeping of the Society for educational use in a future Geneva Lake Museum. It is certain that many residents will be willing to assist in the organization of a museum by presenting specimens which they now possess.

An incomplete list of the various types of Indian stone implements, ornaments and ceremonials found in the Geneva Lakes region include:

Arrowpoints	Hammer stones
Spearpoints	Pecking hammers
Perforators	Grindstones
Scrapers	Spud
Saws	Anvil stone
Blanks and disks	Pendants
Flake knives	Gorget
Knives	Discoidals
Celts	Balls
Grooved axes	Banner stone
Grooved hammers	Stone disks, small
Ads-axes	Pipes

Of the heavier stone implements the grooved axes are the most numerous. The two discoidals were in a Fontana collection, being found there. The number of stone balls (spherical stones) of various sizes found on the various sites about the Geneva lakes is quite large. We learned, on inquiry, that the Potawatomi formerly placed these balls in pieces of rawhide into which they were sewed. From one end a rawhide thong projected, this being furnished with a loop for the hand. This implement made a rather formidable "billy" for use in fighting. Examples of these remain in the possession of some of the older men of this tribe.

No stone chisels, adzes, gouges, mauls, fluted axes or celts, notched or grooved sinkers or grooved club heads were seen in any of the local or other collections. No birdstones, bar amulets, plummets, cones, hemispheres, tubes, ear-spools or stone beads appear to have been collected about the lakes. No bone awls, scrapers, flakers, beads, fishhooks were seen or reported as found here. A painted elk antler, perforated elk teeth and bear teeth were found. The number of native copper implements found about the lakes (consisting of a few spearpoints and a knife) is surprisingly small. Shell beads were found with a burial. The number of potsherds found by ourselves was small. Quite a few have been collected by others from some of the local sites in recent years. A vessel, entire or broken, was found with a burial in digging in the bird effigy mound elsewhere described.

Trade material found on local sites consists of kettles and pieces of kettles, silver brooches, glass beads, gun flints, mirror, trade pipes, bells, bracelets, armlets, finger rings, earrings, wampum beads, thimble ornaments and bangles.

LAKE GENEVA PLACE NAMES

The Potawatomi Indian name of Lake Geneva, and by which it has long been known, is given as "Kishwauketoe", a name said to mean "clear water." (See Footnote) The lake was known to the French as "Lac Gros-piéd", taking

Kishwauketoe.—There is a question concerning this name and its significance. Prof. Edward Sapir of the University of Chicago states



INDIAN MOUND ON THE NORTHWESTERN MIL-
ITARY AND NAVAL ACADEMY CAMPUS.

Plate 8

its name from Big Foot, the chief of the Potawatomi villages formerly located at Fontana and Williams Bay. Later during British and American possession it became known as "Big Foot Lake."*

The principal bays and points on the north shore of the lake, beginning at its eastern end are Geneva Bay, Cisco Bay, Cedar Point, Williams Bay, Conference Point (former Camp Collie), and on the south shore Black Point, Long Point (at the Narrows), Buttons Bay or Gipsy Bay and Ceylon Point (formerly Manning Point). It is strange that so few of the Indian names for the different points and bays have survived at Geneva Lake.

We learn from the descendants of some of the Lake Geneva Potawatomi now located in Forest and Wood Counties in Wisconsin, and in Kansas that the name given to present Cedar Point is Kē-shē-gē-ki-äh-ke-täh-kē-wun, meaning cedar hill or ridge. They say that every cedar tree represents a dead Indian. By cutting down a cedar you kill that Indian a second time. The Indian name for Williams Bay was Ke-nāgo-māk-nēbis or "eel water." Eels were formerly caught here by them. They were speared in the lake shallows, cut up and cooked in kettles.

At the head of the Williams Bay marsh were a number of springs about which the Indians formerly camped. Their names for these springs was Tā'-ke-bin. The name given to the point known as Conference Point was A-kā-do-wā-be-win, referring to a steep rock or cliff. A thunderer (thunder bird) is said to have once alighted here.

The name of Black Point is given as Et'-shē-ke-kos-kēk, meaning dark woods.

The Narrows is designated as Kāsh-ki-gā-māg referring to a place "where the shores come close together." An Indian legend about the Narrows relates that the culture hero, Wí-sāka, pursued by a large bear, who sought revenge for some injury done to him, leaped across the lake at this point.

that Professor L. Bloomfield, who is a specialist in Algonkin linguistics is unable to explain it.

Mr. Daniel Shepard of Arpin, Wisconsin, of Potawatomi ancestry, states that "Kish-wauk" is a Potawatomi name for a sycamore tree. "Kish-wauk-ctoe may be construed as an old sycamore tree."

*The name "Big Foot L." appears on Wisconsin Territory maps of 1835, on Hinman & Dutton's Wisconsin Territory map of 1837 the names "Geneva L." and "Como L." appear.

The bear was so surprised at this feat that he did not attempt to swim across until Wí-säka had gotten away on the opposite shore.

The name of Lake Como is given on early maps of the region as Duck Lake. The Indian knew the lake as a good hunting ground for water fowl and for muskrats. Their name for it is Gē-shib-ni-bis or "duck water." Other Potawatomi place names are presented elsewhere in this report.

SOME POTAWATOMI MYTHS AND TALES

THE STARVING INDIANS

The Indians were starving. A medicine man took an arrow shaft and broke it into many pieces. These became prairie dogs. Then they had plenty to eat.

THE WATER MONSTER

The Potawatomi have a tradition that Lake Geneva was inhabited by a monster serpent or water monster. Some of the old people have seen it when it sometimes rose to the top of the water. It lived in the depths and was very much like a huge eel in appearance. They were very careful not to disturb or anger it, and not to venture out on the lake in their canoes when it was about on stormy days. The disappearance of some Indians was attributed to this monster. The Indians do not remember whether or not their ancestors made tobacco offerings to quiet it. They probably did.

SNAKES

Snakes are Spirits called Mānitú wûk. They are not desired about a lodge as lightning often strikes where they lurk. If seen they are offered tobacco, and driven or coaxed away with prayers for good luck.*

Other animals do not like them because of the evil they may bring.

The following Potawatomi story was furnished by Paul Johnson, residing at Eagle River, Wisconsin.

NIGHT AND DAY

"Made up by some Indian, Potawatomies. In the beginning there was no light, it was night. So the animals leave it to the bear and rabbit. The bear want it to be night all the time so he could go round all the time and hunt as he usually does at night. He said kit-dba-kit, that means night. The rabbit said wau-bin in a high small voice as we usually hear him saying in the night. This means day. He was afraid if it be night all the time the bears would kill all the rabbits. So this way they went saying together. The bear said kit-dba-kit, kit-dba-kit, kit-dba-kit, and the rabbit hollered very fas wau-bin, wau-bin. The rabbit say this many times before the bear say his twice. Pretty soon the bear got mixed up and made mistake and said wau-bin (instead of kit-dbā-kit) and so the day came. They were sitting facing each other and the bear got angry and was going to hit the rabbit. But the rabbit was too quick and jumped backwards so the bear just swiped him by the face and hit him on the nose. As the rabbit turned to run away the bear with his other paw caught the rabbit by the tail and pulled nearly all of it off. There was but little left of the long tail which the rabbit used to have. So that's why we have night and day and the rabbit a short face and short tail. The end."

ORIGIN OF HORSES

The Potawatomi have had horses for a very long time. No man knows how long ago they were obtained, but it used to be said by our forefathers that the first horses, like the Potawatomi themselves, came from the sky.*

WI SAKA TURNS HIS GRANDMOTHER TO A STONE

Wí sakä and his grandmother were trying to kill beaver on the shore of Lake Superior. He found their tracks and calling his grandmother told her to sit and watch the trail while he dug out the beaver. The trail lead across a point of land to a bay and he thought they were likely to run that way.

*Bull. Milw. Pub. Museum, V. 6, No. 3.

Wí sākā dug into the beaver lodge, and caught one of the animals by the tail and flung it up on the trail. It ran away from him over the path, and Wí sākā pursuing, it found his grandmother fast asleep. He grew very angry and pushed her exclaiming "You are good for nothing! You only keep your mind on men!" He turned her into a rock and there she may still be seen.*

WATER PANTHER AND THUNDERBIRDS

There is an evil power in the water, who possesses the ability to pass through the earth as well as its natural element. This is the great horned Water-panther, called Nampé shiu or Nampeshi'k. It is at constant war with the Thunderbirds. When one appears to a man he will become a great warrior. Such panthers maliciously drown people, who are afterwards found with mud in their mouths, eyes and ears. One of these lived at Mänä' wa', now Milwaukee, and sucked people in. The name Mänä' wa refers to its den.

The Thunderbirds, called Wämigôhuk or Nêm' kihûk, are the usual giant eagles of the Central Algonkian. They dwell above the sky in the empyrean, and flash lightning from their eyes. They destroy the underworld horned-panthers whenever possible. They are war-gods and rain-gods.*

FIRE

Fire is invariably referred to as "Our Grandfather". It is said to have been put into the world to accompany, warm and light us, and to cook our food. It was here before men came, and it will be here when all men are dead. One may not sit on the end of a burning fire log. One may not insult the fire by spitting in it. Should anyone spit in a fire in a Mascoutens' lodge, the inhabitants at once put it out, and even carry out the ashes. The woman of the house acts angry, and the man will make conciliatory speeches and perhaps even make gifts to the offending visitors while a new fire is being made.

It will bring bad luck upon the lodge to throw burned

*Bull. Milw. Pub. Museum, V. 6, No. 1.

matches in the fire. White man's fire is not pure like that of the Indian and the fire will be contaminated. The house may then be struck by lightning. Fire is called Skutäo', fire, or Mêshonsênon or Grandfather.*

SURVEY RESULTS AND ACKNOWLEDGMENTS

The archeological survey of the Lake Geneva region was conducted by the Geneva Lake Historical Society with the coöperation of the Wisconsin Archeological Society and the State Historical Museum. It was made possible by the generosity and interest of Mr. S. B. Chapin, a summer resident of Lake Geneva, who provided a fund for that purpose.

The work was begun by ourselves in July and continued at intervals until the month of October, 1927. Previous to our undertaking this survey very little of the archeological history of the Geneva Lakes had been known. With the exception of a few records published in The Wisconsin Historical Collections and other data in the possession of the Wisconsin Archeological Society there was almost no information available for persons interested in the life of the Indian inhabitants of Lake Geneva.

Dr. Jenkins' delightful work, "The Book of Lake Geneva", had created a popular interest in the Indian history of the lake. His book furnished the inspiration for our survey.

At this late date (1927) systematic archeological investigation about the Geneva lakes was confronted with many difficulties which might not have been encountered by the archeologist years ago. Among these were the occupation of former native habitation sites by fine residences, lawns and gardens, the construction of roads, cultivation of fields, the subdividing and improvement of former forested tracts for residence purposes, and similar causes. The Indian mounds once located on the site of the City of Lake Geneva had long since disappeared. A large amount of material of interest to the archaeologist had been carried away to other states.

The survey had several objects in view besides that of the investigation of the Indian prehistory and history of the lakes. These were the preservation and marking of local

sites of archaeological and historical interest, the organization of a local archaeological and historical museum, and the possible acquirement of a camp ground for the use of descendants of former Lake Geneva Potawatomi desirous of now and then revisiting their former lakeland home. The first of these has been accomplished by the erection under the direction of Dr. Jenkins of the four bronze markers placed on the Chicago trail and the site of the Big Foot village at Fontana. These artistic tablets were provided through the generosity of Mr. S. B. Chapin. It is our hope that this year the mounds on the camp ground of the Northwestern Military and Naval Academy may be marked by that institution, and that other markers may be erected in other localities that should be marked.

Among the results of our survey were the location on the shores of Geneva Lake of 4 village sites, 30 camp sites, 5 planting grounds, 2 sugar bushes, 1 group of provision caches, 3 cemeteries, 3 graves or solitary burials, 2 mound groups, 3 solitary mounds, 2 implement caches, and one spirit stone or shrine. On the shores of Lake Como there were located 2 village sites, 14 camp sites, 2 planting grounds, 1 sugar bush, 1 mound, 2 groups of caches, and 1 implement cache. With these results we are pleased, as for reasons already stated, we had expected to find surviving a much smaller number of Indian monuments and sites. The future cultivation of lands not under cultivation during our survey, and the cutting of the timber, or improvement of tracts of land now wooded, is likely to reveal traces of additional camp and village sites. Some of the spots which we have designated as camp sites may prove to be more extensive than they are at present known to be, and may be more properly classed as village sites. Additional burial places are also very likely to be discovered on the shores of both lakes. The number of Indian mounds recorded from the shores of Lakes Geneva and Como is 12. Three are effigy mounds. It is likely that a few other mounds of which there is no very definite data were destroyed years ago on the site of the City of Lake Geneva. At Delavan Lake in this region the number of mounds was 65.*

*Delavan Lake, 6-1 Wis. Archeologist (1926)

The archaeological material collected from some of the Indian sites about both Geneva lakes is Algonkian in character. We may never know whether some of these sites were or were not occupied by the Illinois (Miami ?) before the arrival at Lake Geneva of the Prairie Potawatomi, both being of Algonkian stock. The Miami occupied northeastern Illinois at an early date.† Perrot found a village of this tribe near that of the Mascoutin, on the Fox River in Wisconsin, in 1669. Little Turtle, their famous chief, is reported to have said: "My fathers kindled the first fire at Detroit; thence they extended their lines to the headwaters of the Scioto; thence down the Ohio to the mouth of the Wabash, and thence to Chicago over Lake Michigan".*

Our thanks are particularly due to Dr. Paul B. Jenkins for his at all times very helpful interest in our work. He frequently accompanied our expeditions and assisted us in making contacts with residents of the region who possessed desired information.

The beautiful Y. M. C. A. College Camp, Mt. Olivet, was our host during the survey, providing us with food and a tent on the camp ground. The Yerkes Observatory furnished us with an office in its building. Among the many other good friends whose hospitality and assistance in the survey we wish to acknowledge are Mr. and Mrs. S. B. Chapin, the hospitality of whose home we frequently enjoyed, Mr. J. S. Hotton, Dr. Edwin B. Frost, Dr. S. B. Barrett, Mrs. Elizabeth Chapin Patterson, Mrs. C. H. Hutchinson, Col. Royal P. Davidson, Mr. B. H. Bentzen, Mr. T. J. McDonald, Mr. A. R. Todd, secretary of the Lake Geneva Board of Commerce, Mr. Frank Featherstone, Mr. Dell Crumb and other friends.

†See Hennepin's map of 1698.

*Handbook of N. A. Indians, 853.

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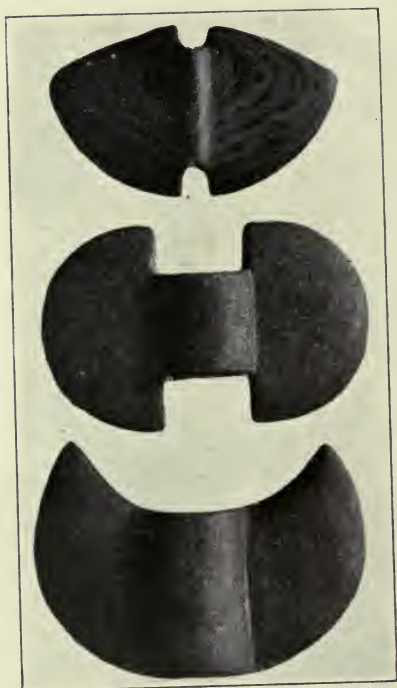
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BANNERSTONES
Edward D. Payne Collection,
Springfield, Illinois

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No. 4

THE SACRED SPRINGS OF THE LAKE POYGAN REGION

George Overton

When Allouez first visited this part of Wisconsin in 1670 he found the Winnebago and Potawatomi in the Lower Fox-Green Bay country, Mascouten or Prairie Potawatomi at Eureka on the Upper Fox and the Fox Indians near the Big Cut-off on the Wolf. He did not find any people on Lake Winnebago or in the Upper Lake country. A few years later the Fox had located at Little Butte des Morts where they started to make a nuisance of themselves by levying tribute on the passing French traders. After the cleanup of the Fox by the French and Indians, largely Menomoni, under Morand about 1730, the Menomini filtered down to the lake region of Winnebago County. They claimed and occupied all the territory north of the Upper Fox River and east of the Wisconsin River, north as far as the Chippewa country. This occupation lasted a hundred years or until the great influx of white settlers in the late forties of the last century. L. B. Porlier in his personal narrative reports a Menomini village at Tustin and their principal village at the Pay Grounds on the south shore of Lake Poygan but neither in the vicinity of the Sacred Springs.

A prehistoric settlement of very considerable magnitude was situated on the shores of Norwegian Bay, an arm of Lake Poygan near its northwest corner. This settlement occupied a large part of Section 31, the fractional north part of Section 32, and parts of the south portion of Sections 29 and 28, Town 20, Range 14 East. The shore line is about a mile and a half long.

Evidence of very extensive prehistoric occupation of this region still exists. Lawson in his 1903 report * lists a

* The Archeology of Winnebago County, 2 Wis. Archeo., Nos. 2 and 3.

group of seventeen mounds in this vicinity. T. L. Miller made a plat of this group in 1927 but cultivation had leveled many to the point of almost total obliteration. He was able to find only twelve earth heaps that could be identified as mounds. This group was discovered by Chas. Freer in about 1853. Henry Boyson, son of an original settler, reports Indian garden beds covering practically their entire farm, some of which still exist in the woodland. Chas. Ulrich, farther up the bay, reports many Indian gardens and burials in that locality.

Surface finds have been abundant and many specimens were of exceptional merit. One polished stone spud in particular, found by Charlie Boyson, and now in the S. D. Mitchell collection in the Oshkosh Public Museum, is considered one of the finest found in the state. The variety of artifacts found, their beauty of design and workmanship leads to the conclusion that this settlement was very wealthy in the goods of its time. The material from which the artifacts are made embrace practically all kinds of flint and other stone commonly found in central Wisconsin. In shape they range from the triangular Iroquois to the long heavy buffalo points of the Sioux and the barbed white quartz of the south. In character they were war, hunting and the heavily barbed fishing points, also spear and javelin heads, knives and scrapers. There is ample evidence that these people had extensive commercial intercourse with distant aboriginal tribes.

Three Sacred Springs have been located in the western Poygan region. That Indians believed spirits inhabited such abodes is accepted without question. That they made offerings to these spirits of the best they had I shall attempt to prove by describing the recovered contents of these springs. When the writer informed old Nah-che-wah-tok Wa-he-ka (Charlie Dutchman) of these springs. He said: "Sure! I believe it! He is in there, I know it!"

The Bohn Spring is different in location and somewhat different in the character of its products from those on the north shore of the lake. This spring is situated somewhere on the old original beach of Lake Poygan in the west half of Section 18, Town 19, Range 16 East, which is the southwest shore of the lake. It is now covered by four

feet of water under which are shifting sands. It is a question if it will ever be located again. It was very thoroughly explored and it is doubtful if it were again located that it would yield further evidence of former sacrificial offerings. I can best describe it by repeating the narrative of the late Loren Leaman formerly of Winneconne;—"About 1890, I, with three companions, was fishing sturgeon in Lake Poygan. Our cabin boat was tied to the shore opposite the Bohn farm. We got our water from a spring on the beach a short distance from the boat. The spring was small, just large enough to dip a pail in, but rather deep. One morning one of the boys went for a pail of water for breakfast. After waiting a long time for the water we looked to see what had become of him. We saw him down on his hands and knees clawing in the spring. Thinking he had gone crazy we ran over to see what the matter was and found him completely surrounded by Indian relics he had dug out of the spring. We had often noticed something round bobbing about in the bottom and thought it was a stone. He had poked it with a stick and then fished it out. It was a human skull. When he pulled it out a deer horn came out with it. We all joined in and scooped out everything we could find. We dug out flint spears, all kinds of arrowheads, pipes, bone awls, bone fish spears, shells, pieces of deer horn and other trinkets till we had more than half a bushel.

We did not divide the stuff. That fall when we got back to Winneconne the church was having a bazaar and supper and we were asked to display our find as an attraction. It completely covered a table ten feet long. We left it in the church that night. When we came to get our stuff in the morning not one scrap was left, everything had been stolen."

The Burgner Spring, or spring-No. 2 of the Mitchell catalog, is on the shore of Lake Poygan in the southeast quarter of the southwest quarter of Section 31, T. 20—R. 14 E. This spring, now covered with water, is very deep. Long poles have not found bottom at sixteen or twenty feet. The late Chas. Freer pretty thoroughly explored this spring in the early days before dams had raised the level of the lake. He disposed of most of his finds to his friend, S. D. Mitchell, who had on display the following:—Heavy bone

fish spear with five barbs, five bone daggers, seven bone awls, two bone punches, a human skull, several bear skulls, deer horns, pieces of ornamented antler, bear and other large teeth, a copper awl, and two quartzite and other arrowheads. The depth of the water and the amount of quicksand at the bottom prevented a more thorough exploration.

The Freer Spring, richest and most important, was located on the farm of the late Charles Freer now owned by his son Geo. Freer, in the fractional southeast quarter of the southeast quarter of Section 31, T. 20 N.—R. 14 E. The spring, as described by Geo. Freer, who as a boy trapped mink around it, was situated in a low meadow situated between a woodland and lake, about eight or ten rods from the lake. The land was boggy around its margin and was surrounded by a growth of canebrakes or quill weeds. A deer trail led from the woods through the sedge and canes to the spring. This spring was discovered by Mr. Freer in about the year 1852. During the following years he raked many relics from it. From 1872 when the Neenah-Menasha dams were raised till the late 80's the spring was covered by the lake. In 1889 and for three years thereafter the mill men drew down the water till the lake was lowered to its original bed and all the old shore campsites were revealed on the beaches. Mr. Freer not only industriously searched the beaches but had a sort of hooked rake made with which he combed out the spring. He not only scraped out the bottom but dug away the sides till it was twice its original diameter and depth. Of the material he found much was given away to friends and callers. This has been lost to record. What was left is now in the S. D. Mitchell collection and is cataloged as Spring No. 1. The following are perfect specimens:—Large bone fish spear with six barbs, bone fish spear with three barbs, bone celt, twenty-four bone daggers, forty-three bone awls, one flaker, fifty bear tusks, several bear skulls, many deer horns, one copper fish spear and two broken stone gorgets. One hundred twenty-five perfect pieces in all. Besides these are many broken and miscellaneous pieces the color and state of preservation of which indicate they came from these springs. Several decorated clam shells and a piece of a

catlinite pipe bowl of the Micmac type. Two other catlinite pipes are listed. These latter are Siouan in type and are probably surface finds. If we add to this list the specimens which Mr. Freer gave away and others surreptitiously raked out by relic hunters we have a total of three or four hundred pieces.

The predominating type of implement is a so-called bone awl fashioned from the front leg of a deer or elk. Many of these are beautifully made and from their size and extreme sharpness might easily have been used as daggers. All of the bone pieces are practically as sound as when made and are bleached to snowy whiteness. The type of these implements exactly tallies with those accepted as ancient Winnebago. The wonderful state of preservation of these pieces is due to the purity of the spring water which comes from the Poysippi Hills of Potsdam sandstone and is practically free of mineral or coloring matter.

The large number of bone implements recovered from the Poygan springs gives some indication of the extensive use of other material than stone in the so-called Stone Age. Very few examples of well preserved bone implements are commonly recovered in comparison with those of stone. On account of its abundance, the comparative ease of its fabrication and the variety of its uses bone entered very largely into the manufacture of their tools and weapons.

We are greatly indebted to the religious convictions of those old fellows whose sacrificial spirit prompted them to make offerings of their choicest possessions to their spirits in places where they would be preserved to us. Through a study of these remains we may learn of their struggle for existence and of their culture.

OTHER SPIRIT SPRINGS

Charles E. Brown

A number of other sacred springs are known to have existed in Wisconsin. Several of these have been described in previous issues of *The Wisconsin Archeologist*. One of the most noted of these was the so-called Vita Spring, located in Vita Park at Beaver Dam.

"This spring was well known to the red men of the forest,—as the 'healing spring'. Much-kaw, the great medicine chief of the Winnebagoes, continued to visit this spring as long as he lived. He died in about the year 1860, at the great age, as he said, of 120 years. In talking about this spring, he said, so long ago as he could remember, it had been known to the Indians as a 'healing spring'; that long years ago, there had been contentions between his tribe and the Potawatomes for the possession of it for medicine water and a hunting ground, it being a resort for wild animals, especially in times of great drought. And this story is corroborated by the fact that it has never failed or materially changed its volume since it has been known to the white man. It is also corroborated by the great number of relics found in and about the spring while clearing it out and preparing the grounds,—such as pieces of human skull-bones, other human bones, and a large number of bones of animals. There were also found many elk and deer horns; one large elk horn was found in the center of the spring, several feet below the surface of the ground. Other relics were found, such as pieces of gun-stocks, gun-barrels, arrow-heads, etc." * Some of the bone awls, a celt made of a piece of elk antler and several small bone disks or counters found in this spring were formerly in a Beaver Dam collection.

Another shrine of this character was located on the Marthaler farm on the east bank of the Beaver Dam River, south of Beaver Dam. In digging out this spring a large brown chalcedony disk was found, with stone implements, potsherds and animal bones.* The disk, which was reported to be one of three such specimens found here, later came into the possession of Mr. E. F. Richter at Milwaukee.

One of several springs located in Lake Forest, on the south shore of Wingra, at Madison, had a bad reputation. The Winnebago who camped there years ago never made any use of its waters although these are of as fine a quality as those of two other springs in the vicinity.

In former days springs, lakes and water courses were sacred to and under the special care of the members of the

* The Wis. Archeologist, 1. N. S. No. 1, 10, 17.

Water-spirit clan of the Winnebago. Tobacco and other offerings were made to the spirits supposed to inhabit such places. The origin myth of this clan has been collected and published by Dr. Paul Radin:—

“In the beginning, when the clans began to form, the Bird clans came upon the earth first and alit upon an oak tree at Red Banks; and when they alit upon the oak tree they became human as we are now. Then the Water-spirit clan was to appear at Within Lake; and the waters began to whirl around in the lake and all the bad things that inhabited the waters began to appear. Just before the Water-spirits appeared some burned embers came up from the waters and the whirling became faster and deeper. As all the great things began to appear it always seemed as if the Water-spirits were the next to appear, but not until the last did they come up. Thereupon the waters began to quiet down. Then a white Water-spirit appeared, with its horns curved towards each other, and when it came up on the earth it became human and walked. Then the other clans said, “Now, then, this is the chief. This is all that we have been waiting for. Now we shall divide ourselves (into groups).” Then they started for the lodge of the Thunderbird clan and entered it. There they named one another and divided one another into clans and there they counceled with one another.” *

Among the Wisconsin Winnebago, Menomini, Potawatomi and Chippewa the belief in spirit-inhabited springs and lakes still persists. Doubtless tobacco and other offerings are still made at some of these shrines. Alanson Skinner mentions that:—“The bear is the recipient of special reverence and is not killed without a ceremony and apology, a custom widespread among the Central and Northern Algonkians. Bones of the bear are scrupulously collected that they may not become food for dogs and are deposited in running water. The skull is hung in a tree in a “clean place” in the woods. These animals are supposed to reside in springs during winter, as well as in drier hibernating quarters.” *

* 37 Ann. Rept. B. A. E., 242.

* Material Culture of the Menomini, pp. 177-178.

Among the Wisconsin lakes which the Indians supposed to be inhabited by water spirits or water monsters are Menota, Geneva, Green, Devils, and Thunder Mountain Lake in Marinette County. Legends concerning these have been collected and published. It is desirable that as complete a list as possible of the sacred springs of the state be made.

A MINNESOTA COPPER PIKE

Willoughby M. Babcock

A splendid specimen of the prehistoric copper spear or pike has just been deposited by its finder in the museum of the Minnesota Historical Society.

While at work in 1926 upon State Highway No. 2, in Section 31 of Red Clover Township about two miles west of Cromwell in Carlton County, Thomas Isaac Bruno of Cromwell ploughed up a beautiful specimen of that unusual type, the native copper spear or pike. The piece is estimated to have been about 8 inches under ground, for the plough share just struck it and brought it to light. $32\frac{3}{4}$ inches long and $\frac{3}{4}$ of an inch at its greatest diameter some four inches above the point, the piece tapers gracefully to the butt, where it is bent into a claw or hook for attachment to a handle. Its weight is four pounds. There is no indication of a barb.

Charles E. Brown in his article "The Native Copper Implements of Wisconsin", published in the *Wisconsin Archeologist* 3:80 (January, 1904) mentions several Wisconsin pikes, among them one in the Wyman Collection in the Field Museum 40 inches long and an inch in diameter, weighing $5\frac{1}{4}$ pounds. This latter piece he calls the largest one found. If so, this Minnesota specimen must be among the largest known. From its resemblance to the pieces described, it is probable that the same group of Indians who forged those pikes made this one, and that it came into Minnesota through war or trade.

The purpose for which such a piece as this was made, must, of course, remain a matter for conjecture. The weight, balance, and shape (comparable in form to certain types of pinch bars in use today), however, incline the

writer to the belief that the specimen in question was used in quarrying operations for prying masses of rock or copper from their moorings. The piece was originally well pointed, though now blunted from hard usage, and a cross section through the specimen anywhere would give a fairly good circle.

While speculating as to the use to which the piece was put, it may be well to mention an iron muskrat spear in the museum of the Minnesota Historical Society which is similar in several respects to the specimen under consideration. This spear is about 36 inches long, has the same type of claw or hook at the butt, and gives the same impression of massive construction, although the greatest diameter does not exceed $7/16$ of an inch. The balance of the two is much the same. The iron spear, however, is roughly barbed, while the copper piece is smooth. Either spear, if used for fur hunting would make such a hole in the animal as to ruin the pelt.

Quarry tool, pike, or heavy spear, the specimen is a wonderful example of the prehistoric copper worker's art, and the Minnesota Historical Society is fortunate in having it placed in its museum for preservation.

TWO FLUTED STONE IMPLEMENTS

Vetal Winn

An interesting fluted axe was found near Newburg, Washington County. It is $5\frac{1}{2}$ inches long, with the handle groove extending squarely across three sides. It has received rough usage as shown by the condition of the poll and the cutting edge. The top of the poll is crumbled away and several pieces have been broken from the side. The cutting edge, now sharp has also been dulled or possibly nicked and re-sharpened several times as shown by the condition of a groove near the edge on one face and parallel to the edge.

The front of the axe is squared and is ornamented with eight transverse grooves which occupy the entire space between the handle groove and the cutting edge. The right side has five longitudinal grooves extending from just be-

low the handle groove to near the cutting edge. The left side has six grooves arranged as follows: one groove next to the rear edge extends from just below the handle groove to near the cutting edge. Four grooves extend from just below the handle groove about half way to the cutting edge filling the space between the long groove and the front. A sixth groove is crowded between the full length groove and the adjoining short groove, extending from just above the lower ends of the short grooves down past the ends of the short grooves where it turns at a right angle filling the space between the short grooves and the cutting edge. The transverse part of this groove is so shallow as to be scarcely perceptible and I think its condition is proof that the bitt of the axe has been sharpened several times. In its position, each time the edge was sharpened, the groove would become more shallow and if the axe had been kept in use long enough, the groove would have disappeared entirely.

Notwithstanding the battered condition of the poll, enough of the original surface remains to enable one to conjecture the probable manner of its ornamentation. The surface of the poll and the back side of the axe were occupied by a groove probably representing a snake. The head of the snake is on the front of the poll just over the handle groove. It is represented by a shallow depression where a groove followed the side of the poll near the upper edge to the back or nearly to it, thence back over the poll to near the front on the opposite side again following the side of the poll to the back of the axe whence it curves in a zigzag manner to near the cutting edge.

On the poll, the head remains, together with a small portion of the groove connected with it. On the opposite side of the poll the groove can be traced nearly across the poll, the other parts of the sides of the poll as well as the top of the poll being crumbled away. On the back of the axe the groove is of course distinct.

A stone adze, grooved and fluted was found on the farm of John Scholl at the Indian camp site near Belgium, Ozaukee Co. It is about $6\frac{1}{2}$ inches in length and proportionally rather slender. It is nearly circular in section from below the handle groove to the top of the poll. From below the handle groove it tapers to an edge like an ordinary

carpenter's adze. The edge is beveled in front and the back is slightly hollowed giving the implement a curved appearance.

The left side is wider than the right and has six longitudinal grooves or rather facets. The right side had three. The facets extend from just below the handle groove nearly to the edge except those nearest the front which extend to the bevel and apparently have been shortened by sharpening the edge of the implement.

MOUNDS, ETC., IN THE NETT LAKE-RAINY LAKE COUNTRY OF MINNESOTA

Albert B. Reagan

MOUNDS

Twenty-one ancient mounds are found bordering Rainy River, between Rainy Lake and the Lake of the Woods. These range from six to twenty feet in height, each apparently guarding a rapids of the river. From these mounds many implements of stone, copper, horn, and also pottery and human bones have been taken.

Mr. A. C. Lawson's collection from them makes a fair exhibit of what they contain in the way of artifacts. This collection includes the specimens listed at Ottawa in the archeological and ethnological collections of the Geological Survey of Canada as numbers 1499 to 1528.

It would seem that these mounds served both as watch towers and burial mounds. They antedate the coming of the Chippewa to the region.

A mound was found by the writer on Jose B. Dove's place, on a little peninsula just across the strait northwest of "Rainy Lake City." It is recent in origin, and the writer is of the opinion that it formed a part of the Red Medicine Lodge ceremonies of the present Chippewa.

A mound eight feet high and thirty feet in diameter was visited near Embarrass. It is located in the valley of Embarrass River, near the southeast corner of Section 34, Township 58-16, on the south side of the river, about forty rods from Essquagama Lake.

So far as the writer knows, no other mounds have been found in the region.

CACHES

An implement cache was found at "Rainy Lake City" by a gang of workmen. A number of articles were unearthed, these consisting of stone and iron knives, curious stone and iron pipes, stone, copper, and flint arrowheads, tomahawks, a double-barreled gun, and various other articles. No human bones were found.

The articles appear to have been deposited in an excavation along the shore and was probably a cache made by Indians since the beginning of the fur trade.

POTTERY

The Chippewa Indian village of Nett Lake is situated on a little peninsula on the east side of Nett Lake, about 140 miles northwest of Duluth, Minnesota and about 38 miles nearly south of Fort Frances, Ontario. On almost any place on this point of land the plow throws up pieces of pots of Indian make. No whole pots have so far been reclaimed.

This pottery is of a coarse sort and was evidently made by hand and then baked. All the pottery examined has been marked with a sharp instrument, or with the finger nail before burning. Some specimens appear to have been made within of woven baskets, the weave impressions still showing, the basket being burned off in the kiln. These sherds resemble those found in the Rainy Lake mounds, and no doubt, were made by the same people. Pottery fragments are also found on the shores of Sucker Bay of Vermillion Lake, near Tower, Minnesota, and at Elbow Lake near Gheen, twenty miles west of Vermillion Lake. The Chippewas that the writer conferred with say that they know nothing about this pottery and that it must be Siouan.

ARTIFACTS

The following Indian implements have been found in the Nett Lake-Rainy Lake region:—A semicircular stone drawing knife (probably used in shaping canoe paddles),

stone axes, stone arrow and spearpoints, and knives of various shapes, bone fishhooks, bone awls (sharply pointed rib bones), bone flutes, copper fishhooks, copper arrowpoints, copper implements pointed at both ends (awls?), copper punches, copper chisels, copper crescent, copper beads, toy earthenware cups, earthen balls, shell articles and clam shells.

INDIAN FOLKTALES

WAZUNKA

(Winnebago Tale)

John Blackhawk

In a Winnebago village there lived Mora-jay, a warrior who was renowned as the "bravest of the brave." In battles, which were frequent in those days, he won distinction by taking the form of a grizzly bear and killing numbers of the enemy in their very ranks in spite of the concentration of missiles directed against him. Mora-jay was feared and admired by the villagers, he being the factor in the defense of the village against roving war parties. He was married to two of the most beautiful Winnebago women and he at all times jealously guarded them against advances of young men. The older members of the tribe advised their young men to keep away from the women of Mora-jay.

Once the youngest of four brothers, whose name was Wazunka, who was a great admirer of the younger wife, Henoo-ga, waited for her at the water and when she came to draw water, he detained and held her until she feared to go home. She remonstrated with him in vain saying Mora-jay would not only punish her, but she also feared for his own safety as Mora-jay always knew when anyone talked with his wives. Finally they decided to run away to a distant Winnebago village, until Mora-jay's anger wore off.

While on their way on an outgoing trail Wazunka was stricken by a sudden fear and foreboding. He ordered Henoo-ga to hide in the shade of an uprooted tree. Immediately after she had done so the form of an enemy warrior appeared coming from the opposite direction. Wazunka stretched his bow and as the warrior came within a few

yards of him he pierced his side with a well directed arrow and the enemy fell dead. His body was drawn to the hiding place and the scalp removed. Then another warrior appeared and was killed in the same manner. Four in all were killed at this spot. These were scouts or runners of a war party.

Taking the four enemy scalps Wazunka and He-noo-ga returned to the village. At Wazunka's suggestion they now entered the lodge of the war chief, Mora-jay. Both he and his wife were asleep. He-noo-ga awakened him saying, "Husband, I take the privilege of myself with this", and placed before him a fresh scalp. The chief, not fully aware of her purpose, said such a thing was insignificant. Then Wazunka placed before him the other scalps with the exclamation, "Chief of Warriors, I purchase my life." Mora-jay then uttered his surprise and called the young man, "Brother, Friend".

Immediately, the nephew of Mora-jay was summoned and ordered to prepare a great feast and invite all the prominent warriors of the village. Wazunka's father was also invited. During the feast Mora-jay announced to those present that he had adopted Wazunka as his "brother-friend," on account of his great deed. The warriors approved of the adoption by lengthy speeches commemorating the bravery of the two. Wazunka's father, in a concluding speech, stated with emphasis that "brother friend" was more binding than that of blood brother and he advised his son to remain with Mora-jay to the end, whatever it might be.

Not long after this incident an enemy war party appeared and engaged the warriors of the village in battle. In this conflict the enemy were routed. The bravery of Wazunka was not as conspicuous as that of the Chief.

Mora-jay was also noted for his great foresight, even knowing of the approach of an enemy force when they came within four-days' journey of the village. Thus the Winnebago were forewarned and met them with success. On this occasion, however, he was blind to the knowledge of a large war party which was on its way to the village.

Wazunka knew of the approaching enemy. He told Mora-jay that he saw a spark of light fly from the arch of the

war party to his friend. Mora-jay could not be persuaded to believe this so Wazunka made it known by a pretended trance. He was awakened by the chief with the words, "Friend, what is thy dream?" Wazunka replied, "Friend, I dream of the approach of a powerful chieftain. He wears a red buffalo head and the arch over him is smeared with red down."

The Chief sent out runners to verify this dream, and on their return they advised him that they had found the enemy exactly as Wazunka said.

The warriors of the village then armed themselves and went to meet the enemy. On the second days' journey the scouts of the opposing forces met and at the dawn of the next day the battle opened with piercing war cries, shrill ceremonial whistles, and the cries of birds and animals. As the battle progressed hand-to-hand fights were common and Red Buffalo on one side and Mora-jay on the other met and killed their adversaries at will.

Mora-jay, when told that Red Buffalo was wreaking havoc in his battle lines, said "Ho," and went to meet him. Red Buffalo was returning to his own lines with a scalp when he saw Mora-jay coming to meet him in combat. Discarding their war clubs the two chiefs met and fought with knives. The struggle was a terrific one. Mora-jay was obliged to fall back but Red Buffalo intercepted him and the battle began anew and continued until Mora-jay was killed.

Wazunka, who was engaged at the other end of the battle line, was informed of the death of his friend. He shouted "Ho" and hastened to meet Red Buffalo. The latter heard the challenge and a desperate duel was fought by the two. Wazunka was the victor. Taking the red buffalo head of his fallen enemy he held it exultantly toward the enemy warriors. Then he learned where his friend's body lay. When he saw it he placed the red buffalo head on the body of Mora-jay saying, "I present to my friend this head." Wazunka then declared, "My father said where my friend died there should I die also. So tell him that I died bravely with that conviction." Whereupon he ran at the enemy killing and routing them at every turn. Finally, worn out by sheer exhaustion, he was killed. At

that instant the enemy cried "Goo"! "Goo" was held sacred by belligerents and the cry brought an immediate cessation of the battle.

THUNDER MOUNTAIN LEGEND

(*Potawatomi*)

Daniel Shepard

Now regarding the Thunder Mountain in the western part of Marinette County. I've heard something about it since I was a little tot. But I have never been there to see it, as close as it is from where I live.

First let me try and explain Thunder. We believe it to be a large bird like an Eagle, only it is way larger. And when it was made it was made to have power in order to defend us from the great serpents in eating or killing the human race. It was also to moisten the earth for vegetation. Thunder, we call them, or one Che-quah. And the Mountain we call Bi-kwa-ki, so Thunder Mountain, is construed Che-quah Bi-kwa-ki.

Many and many years have gone by since the Hill in question received its name. Because in the beginning of its Indian history the Thunder Birds used to make their nests and sit on the two eggs until the young were hatched. Indians many years ago in summer time visited the hill and were surprised to find several pairs of young Thunders. And it's always the custom with Indians to offer tobacco for friendship and safety.

And later on in another visit by Indians a pond was discovered on top of the hill. And it was dangerous. The Serpent who lives under the hill had caused it to be a pond on top of the hill where he could sun himself when the sky was clear. And one sunny clear day he was sunning, probably asleep, when a lone Thunder discovered him and decided to catch him alive and carry him off. So the Thunder came down from the sky and caught the serpent. The Thunder's claws were fastened in the Serpent's flesh. The Thunder would carry him so high. The Serpent, struggling, would carry the Thunder back down on the pond.

By that time an Indian hunter, who was passing by, happened to look to the top of the hill and to his surprise saw

the two struggling, and went up to witness the great fight. He was noticed by them, and the Thunder Bird spoke and said, "My friend, help me, and shoot the Serpent with your arrow and I will make you a great man." The Serpent also spoke and said, "Help me, and shoot the Thunder, and I'll promise you my friendship to the end of all times." The Indian did not know which one to help, so he shut his eyes and shot an arrow towards the fighting two and shot the Thunder. That shot weakened the Thunder and he was taken under the hill as a prisoner. The Thunder Bird is there and the hill is called Che-quah Bi-kwa-ki. Whenever there is going to be Thunder storms in a clear night lightning is seen from the Thunder Mountain.

THE MAGIC POTS

(*Chippewa Tale*)

Albert B. Reagan

It would seem, that the northwestern Chippewa were at one time pottery makers, one of their beautiful stories being their Pottery Myth.

In the long, long ago a very old woman, named Sha-bwa-cumig-oke (One-who-passes-through-the earth), lived in a regulation birch bark wigwam, as did all the people of the earth in that day and time. She was also the owner of a rectangular bark wigwam in which she kept five beautiful pots on a shelf in a corner of the room.

These pots, which were of a magic nature and were beautifully ornamented, were not made for use in cooking, but were to be looked at and used as archetypes in the making of other pots. Therefore, when any Indian woman wished to make pots she would go to Sha-bwa-cumig-oke's wigwam and study these magic pots; for no one could make pots except by examining them and using them as patterns. Thus for many, many years did the Indian women make pots. Then a dire thing happened, and since then no pots have been made by the Chippewa.

It so happened one year that every one went berry hunting at one time, the old woman who owned the magic pots even accompanying them. Now by chance five little girls were left behind in the village. Out of curiosity these lit-

tle girls went to Sha-bwa-cumig-oke's rectangular wigwam and peeped in to get a look at the beautiful pots. Then, after some hesitation, they took them out into the yard and went to playing with them. In doing this they were doing a very wicked thing, for Sha-bwa-cumig-oke had forbidden any one to touch them but herself. Suddenly a yellow wolf appeared. In their fright the little girls left the pots and their playing and scampered into the strongest wigwam in the village for safety. As they thus ran, terribly scared, one of them fell over the birch-bark sheet on which the pots had been set, and instantly there was a noise like a clap of thunder. Later, on returning from their hiding place, the children found that the pots had all been shattered into tiny, shining fragments.

That evening when Sha-bwa-cumig-oke returned and found what had occurred, she at once sought the children and, stretching forth her hand over their heads, pronounced a curse upon them. No sooner had the strange words been uttered than a terrible thing happened, for the disobedient girls were instantly changed into five black crows which at once flew away, cawing.

These same black crows are still living and will live for all time. It is said that they will never be changed back to human beings until water flows up hill, naturally. Since that time the old woman has never been seen, but almost any day in summer you can see the five black crows swinging in the top of some tall tree, uttering a mournful Caw, caw.

A STOCKBRIDGE INDIAN TALE

William Kribs

Told by him to Charles E. Brown at Madison, June 13, 1928

Mr. William Kribs, an old settler of Trempealeau (1866), states that in his boyhood near Beaver Dam (in about 1855) Mr. John W. Quinney, the then head chief of the Stockbridge Indians, sometimes visited his father's farm, a short distance northeast of the present city.

On one of these occasions he went out into the fields to gather medicinal plants, taking William and another boy with him. He had a large knowledge of these, whose vir-

tues he mentioned as he picked them, for he was somewhat of a herb doctor. Later, while seated on an Indian mound in the field sorting his plants, he told the boys this story.

Many centuries ago the ancestors of the Stockbridge nation dwelt in the West (East?). Looking across the water one day these people, who were then small in numbers, saw an island in the sea. Taking their canoes they went to this island. As it was of a quite large size and had plenty of animal and vegetable food upon it they constructed homes here. After living on this island for many years, during which their numbers gradually increased, they one day saw another island in the waters beyond their own. They visited this island which they found to be even better suited for Indian habitation than their own, and so abandoned their former island home for this one. Shortly afterwards the island upon which they had been living sank in the waters and disappeared. After dwelling on the second island for many years they saw other islands in the sea beyond to which they from time to time removed their villages. Whenever they located on a new island those behind sank out of sight in the sea. So, moving continually, for centuries, they finally reached the mainland of the American continent.

By this time the Stockbridge had become a quite numerous tribe. Living near them they found another people who were friendly. These people were builders of earth-works-mounds for burial and other purposes, and fortified their villages with upright poles and banks of earth. While the two tribes were living near each other a strange, war-like people, not Indian, suddenly descended upon them, and after much fighting, destroyed the villages of their mound-building neighbors, leaving none of their inhabitants alive.

So the Stockbridge, who were not molested, continued to live here in peace for many years, perfecting their tribal government and their industrial arts until the white man came.

There is an old portrait of Thomas Quinney in the State Historical Museum which Mr. Kribs recognized readily.

THE FOX AND THE GREASE KETTLE

(Winnebago)

John Blackhawk

At a council of animal people it was discussed as to how much fat each animal should carry. In the center of the lodge there was a large kettle of grease or fat. This was to be apportioned among the animals. The crafty Fox jumped into it very suddenly and emerged very fat. The Bear, who was acting as leader of the council, called on the other animals to catch and hold the Fox. He was caught and all of the fat was squeezed out of him but a little above his forearms or legs. Then he was cast out of the council.

The animals then each in turn entered the grease kettle and to each was given the amount of fat which he should properly carry. The actions of the Fox at this animal council explain why this crafty member of the animal tribe is never in a fat condition.

PLANTS USED BY THE BOIS FORT CHIPPEWA
(OJIBWA) INDIANS OF MINNESOTA

Albert B. Reagan

The Bois Fort Chippewa (Ojibwa) Indians, who are known by the Chippewa name Sugwaundugahwininewug (men of the dense wooded forest), have a reservation in the northern part of Minnesota. It contains 107,519.43 acres and is situated 140 miles northwest of Duluth in the same state, 38 miles south of Fort Frances, Ontario. It surrounds a beautiful sheet of shallow water of three-fourths of a township in area, known as Nett Lake. Its land is very variable in condition of soil and possible fertility. One half of it is swamp and is known to the Indians as "muskeg" land. The non-swamp eastern part is composed of rocky ridges of the Couchiching formation, flanked with clay land covered with pine, and hard wood trees. The western part, which is not covered with swamp, is a sandy region. Nett Lake and its tributary streams occupy the east, central part of the reservation, and the Little Fork and Nett

rivers cross it. The swamp areas are in the jungle state. The dry lands are still heavily timbered where not already logged; while wild rice grows in the shallow lake so that it looks like a vast wheat field in summer. As is seen, the region is practically in the virgin state. The same might be said of the region extending southward and eastward toward Duluth and Lake Superior and northward to the Arctic Ocean, much of which is composed of lakes and swamps.

The plants used by the Bois Fort Indians, as known to the writer, are as follows, arranged by families:

PAPAVERACEAE: POPPY FAMILY

Genus *Sanguinaria* Dill. Blood-root

* *Sanguinaria canadensis* L. A very common Indian medicine, used as a blood medicine. It is also used in the

* For those who are interested in a medicinal way, the following general medicinal receipts are given as the writer found them copied in a medicine man's note book, the scientific names being added by the writer; the rest is given in direct translation.

"1. Receipt for medicine for pain in the stomach, also for fainting and trembling in fits. Also if very sick or bad sore apply this medicine externally. Also for cuts, say of an ax, put this preparation on.

"Make a tea of all the different roots and barks mentioned below by boiling or steeping same: swamp spruce (*Picea nigra* Link, sometimes called Black Spruce), the pussy willow (*Salix discolor* Muhl., also known as Glaucous Willow), tamarack or Black Larch (*Larix americana* Michx.), Norway Pine (*Pinus resinosa* Ait.), White Pine (*Pinus strobus* L.), kinnikinnik (*Arctostaphylos uva-ursi* Spreng and *A. alpina* Spreng), and oak (*Quercus rubra* L. and other *Quercus* species). To this add a little sugar to sweeten it.

"2. For a cut foot apply tea made from boiling together roots of the rose bush (*Rosa lucida* L.), bitterroot, and elm (*Ulmus fluva* Michx.). A little of this tea is also taken inwardly for bleeding.

"3. For a 'bad-sick' stomach or bowels caused by eating too much or for constipation, drink medicine tea of horsetails (*Equisetum palustre* L.), and horsemint (*Monarda punctata* L.) boiled together.

"4. For stomach trouble drink a cupful of tea, prepared by boiling together native peppermint (*Mentha canadensis* L.), a rush pepper plant or Lizard's Tail (*Saururus cernuus* L.), Minnesota Fern, and the roots of the crow berry (*Empetrum nigrum* L.), and slippery (common red) elm (*Ulmus fluva* Michx.).

"5. Another remedy for fainting and fits, also used as a blood medicine, is sarsaparilla (*Aralia nudicaulis* L.) tea made from the leaves of this plant. This drink." The owner of the receipts advised the writer that this remedy is called "Eastern Medicine," as it is the medicine of the Wabena (Eastern) Society of his people.)

"6. Another general remedy: Take the roots of the swamp tea plant (*Saururus cernuus* L.) kinnikinnik (*Arctostaphylos uva-ursi* Spreng and *A. alpina* Spreng), white poplar (*Populus alba* L.), and

jugglery performances of the medicine men. It blooms in April.

CRUCIFERAE: MUSTARD FAMILY

Genus *Lepidium* Tourn: Pepperwort, Peppergrass

Lepidium virginicum L. Wild Peppergrass. Abundant everywhere. Much used by the Indians.

Genus *Brassica* Tourn

Brassica campestris L. Escaped from cultivation. Used as medicine.

TILIACEAE: LINDEN FAMILY

Genus *Tilia* Tourn: Linden, Basswood

Tilia americana L. Basswood. A very common tree of large size. It is also a very beautiful tree when in bloom. The inner bark of young sprouts of this species is made into thread, twine and rope; the other threads and cords, used in the old times and occasionally even now, were made from the sinew of the moose and deer or from rawhide.*

Balm of Gilead Poplar (*Populus balsamifera* L., var. *canadensis* Gray), and pound them to a pulp. This stew into a tea. This tea apply to the afflicted parts by placing cloths on same and pouring the tea on the cloths so as to thoroughly saturate them. The pounded roots and bark when hot just from the steeping tray are also applied. This remedy is much used for rheumatism and kindred diseases.

"7. The following medicine is to be given for 'internal blood diseases:'

"Boil the bark of the following trees and shrubs: white poplar (*Populus alba* L.), yellow poplar (*populus balsamifera* L.), white birch (*Betula papyrifera* Marshall), yellow birch (*Betula lutea* Mich.), red oak (*Quercus rubra* L.), small oak (*Quercus* sp.), small kinnikinnik (*Arctostaphylos alpina* Spreng), and large kinnikinnik (*Arctostaphylos uva-ursi* Spreng). Drink the tea thus made.

"8. For gonorrhea make a tea of the root-bark of the following trees and all the trees growing south of them: *Pyrus americana* DC. (which the note book designated as ash), oak (*Quercus rubra* L.), white elm (*Ulmus americana* L.), and sugar maple (*Acer saccharium* Wang and *A. saccharinum*, var. *nigrum* Torr & Gray). Then add a little tobacco. When cool, drink a cupful three times a day.

* In preparing the thread, etc., the bark of the basswood is removed in sheets and boiled in water in which a quantity of lye from wood ashes has been added. This softens the fiber and permits it to be manipulated without breaking. The unoccupied women then employ their time pulling the bark into shreds and twisting the same into twine and the latter into ropes, as needed. This twine is the sewing material used in weaving mats, erecting bark houses and tepees and for almost all other household purposes. When put away for future use it is hung up in hanks.

CELASTRACEAE: STAFF-TREE FAMILY

Genus *Celastrus* L. Staff-Tree. Shrubby Bittersweet

**Celastrus scandens* L. Wax-work. Climbing Bittersweet. Used as medicine.

* The sugar maple is a common tree of the reservation. It grows in groves. The trees are scarred by repeated tappings, causing each to be considerably enlarged in the part of the trunk that is subject to the tappings. Many tons of sugar are made annually by the Bois Fort Indians.

The sugar-making season comes when the first crow appears, usually about the middle of March, while there is yet snow on the ground. The medicine men give orders and the sugar-making holiday is begun; every one goes to his respective maple grove, which is the place of sugar making for that respective family and claimed by right of descent through the mother's totem.

The first thing on arriving on the ground is to erect the temporary tepees (wigwams). These are the usual conical frame made of poles leaning together at the top, and spreading to the ground all around, and covered with canvas or bark. There is one entrance door and the smoke from the central fire escapes at the top among the loosely fastened poles. Racks are then set up, on which to hang pots for boiling the syrup, enclosed often in enlarged, elongated bark tepees.

The next work is the preparing of sap dishes and buckets.

Quantities of bark are peeled off of the nearby white birch trees; pieces of the bark are cut and folded into sap dishes and pans, each measuring eight to twelve inches in width, eighteen inches in length, and about six inches in depth. The ends are carefully folded and stitched along the edge with basswood fiber, so that it will retain its shape. Several hundred of these dishes are made by each family. Sap buckets are then made from birch bark. These are cut and folded at the corners so as to avoid breaking the bark. The folds are then seamed with pine resin. When completed these buckets are elongated in shape, are supplied with a carrying bale, and are made deep enough to hold one or more gallons. The average bucket measures about six inches across the top, which is round, and eight to nine inches across the elongated bottom; the depth is about nine inches. To strengthen the pail, the top and rim are held in place by means of thin strips of wood neatly stitched fast with basswood fiber. Mocks, or boxes for containing the sugar product, are made in the same way and are of much the same shape.

When the preparations are completed the sap gathering commences.

One (or more) small, oblique gash is cut in each sugar tree so as to take out the bark and about an inch of the sap wood. Down this gash the sap runs to the bottom and trickles downward along the side of the tree. Just below the lower point of the gash a horizontal cut is made in the bark and a downward sloping chip is driven into this cut so that the sap from the cut above runs over it and drips from the end into the sap dish set under the chip to catch the drippings. Twice a day these dishes are emptied into the sap buckets and the sap carried to the tepee to be boiled into sugar.

The sap is boiled in cans and kettles within the large wigwams or outside under the racks, previously mentioned; they have a tradition that before they could get iron kettles, their ancestors used to make kettles of clay in which they boiled sap. As soon as one kettleful

SAPINDACEAE: SOAPBERRY FAMILY

Genus *Acer* Tourn. Maple

Acer pennsylvanicum L. Striped Maple. A common tree.

Acer spicatum Lam. Mountain Maple.

Acer saccharinum Wang. Sugar or Rock Maple. *Shishigime-wish* (which Indian name also applies to the next species, as well). Sugar is made from the sap of this tree and the next below, and the wood of all the maple trees mentioned is used for various purposes.

Acer saccharinum, var. *nigrum* Torr. and Gray. Black Sugar Maple. #

ANACARDIACEAE: CASHEW FAMILY

Genus *Rhus* L. Sumac

#*Rhus glabra* L. Dwarf Sumac.

#*Rhus copallina* L. Dwarf Sumac.

#*Rhus canadensis* Marsh.

#*Rhus aromatica* Ait.

The sumac is a very common shrub throughout the region. Its bark and berries are much used in the medicine ceremonies of the aborigines. They are also used as medicine.

is converted into sugar, another kettleful of sap is hung over the fire; as many kettles are used in this process as the family can obtain.

When the syrup begins to granulate, it is poured into wooden troughs where it is stirred and the granulating process completed. Much of the syrup, just in the act of granulating, is thrown on the snow to cool rapidly, forming sugar wax, which is a good substitute for our candy.

Sugar cakes are also formed by pouring the syrup into sauce dishes, small cake dishes and the like, when just in the act of granulating. These are re-melted into syrup when needed. Much of the maple sugar is now sold to whites in cake form, the granulated product being put into mocoeks for future use.

Besides sugar being obtained from the maple sugar tree, many things are made from the hard wood of this tree and the other maples of the region. One of these is the bowl used in the dice bowl game. This is a large, rather shallow, symmetrical, nicely finished hemispherical bowl. It is made from a large, round nodule of maple root, and is consequently a rare and expensive article for its size. It is fashioned solely with the aid of an ax and a knife. A specimen at hand measures nine inches in diameter at the top and is two inches in depth. It is nearly one inch in thickness at the bottom, but gradually tapers to about one-fourth of an inch at the rim. The arrows of the old times were also made of maple wood.

POLYGALACEAE: MILKWORT FAMILY

Genus *Polygala*

#*Polygala senega* L. Seneca Snakeroot. This plant is used as medicine.

LEGUMINOSEAE: PULSE FAMILY

Genus *Baptisia* Vent. False Indigo

#*Baptisia tinctoria* R. Br. Wild Indigo. Very common. This plant was used in the native coloring and as medicine.

Genus *Lathyrus* Tourn. Vetching. Everlasting Pea

Lathyrus ochroleucus Hook. Quite common.

Lathyrus palustris L. (?)

The wild pea was used as food in the old times.

ROSACEAE: ROSE FAMILY

Prunus serotina Ehrh. Wild Black Cherry.

Prunus americana Marshall. Wild Yellow or Red Plum.

Prunus pennsylvanica L. f. var. *nettlakea*. Pin Cherry. Common.

Prunus virginiana L. Choke Cherry.

Prunus demissa Walp.

The plums and cherries above are very plentiful in the Bois Fort region and are quite extensively used as food. The fruit is eaten fresh and also dried for winter use. When needed for use after being dried, the berry, seed and all, is often crushed and ground up and the whole used as a sort of flour in making soups.

Genus *Rubus* Tourn. Bramble

Rubus strigosus Michx. Wild Raspberry. A very common plant. Its fruit is extensively used by the natives as a food. The fruit is both eaten fresh and dried for winter use.

Genus *Fragaria* Tourn. Strawberry

Fragaria virginiana illinoensis Gray. Strawberries are much used as food by the Indians.

Genus *Rosa* Tourn. Rose#*Rosa sayi* Schwein. (?)

#*Rosa lucida* L. Rose. *Oki-ni-mi-nah-gash*. The buds of this rose and the species above are occasionally eaten. The root and bark are also sometimes used as medicine.

Genus *Pyrus* L. Pear, Apple

Pyrus coronaria L. American Crab-apple. Quite common. Used as food.

#*Pyrus americana* DC. American Mountain Ash. *Ah-o-je-mahg* (adjimag)#

The root-bark of this tree is used as medicine. Also, when steamed, its wood is bent into any form desired by the Ojibwa. It is used in making ribs for canoes, snow shoe frames, lacrosse clubs, etc.

Pyrus sambucifolia Cham. & Schlecht. Occasionally seen. Fruit eaten.

Genus *Crataegus* L. Hawthorn. White Thorn

Crataegus coccinea L. Quite common. The fruit is occasionally eaten.

Genus *Amelanchier* Medic. June-berry

Amelanchier canadensis, var. *oblongifolia* Torr & Gray. Shad-brush. Service-berry. Quite common. The fruit of this species is sometimes eaten now and generally so in the old times.

SAXIFRAGACEAE: SAXIFRAGE FAMILY

Genus *Ribes* L. Currants. Gooseberries#*Ribes gracile* Michx. Gooseberry. Common.#*Ribes oxycanthoides* L. Common.#*Ribes hudsonianum* Richards. Currant. Common.#*Ribes floridum* L'Her. Black Wild Currant.

Ribes rubrum L., var. *subglandulosum* Maxim. Red Currant. Quite Common.

* The Chippewa spelling of the Indian plant names, as found in some of their note and receipt books, will be given in parenthesis.

The currants and gooseberries are used as food by the Indians, both fresh and dried. The roots and bark are also used as medicine.

UMBELLIFERAE: PARSLEY FAMILY

Genus *Heracleum* L. Cow-Parsnip

Heracleum lanatum Michx. Common. Much used as greens.

ARALIACEAE: GINSENG FAMILY

Genus *Aralia* Tourn. Wild Sarsaparilla

#*Aralia nudicalis* L. Wild Sarsaparilla. *Bah-gwah-mahn* (ba-gwa-nan). Sarsaparilla tea is used as a blood medicine, also used for fainting and fits.

#*Aralia racemosa* L. Spikenard. Common. Used as medicine by the Indians. One old medicine man cultivates a patch of this plant.

CORNACEAE: DOGWOOD FAMILY

Genus *Cornus* Tourn. Cornel, Dogwood

#*Cornus sericea* L. Silky Cornel.

#*Cornus stolonifera* Michx. Red-Osier. Dogwood.

The *Cornus* species above are called kinnikinnik by the natives. Their bark is used as medicine. It is also smoked and much used in the various ceremonies. The Indians also get drunk on the smoke of these plants and the other kinnikinnik, which will be described later.

CAPRIFOLIACEAE: HONEYSUCKLE FAMILY

Genus *Sambucus* Tourn. Elder

#*Sambucus racemosa* L. Red-berried Elder. Common. Used as food. A tea made from the roots of this plant is also used as medicine.

Genus *Viburnum* L. Arrow-wood. Laurestinus

Viburnum opulus L. Cranberry-tree. High Cranberry-bush. Quite common. The acid fruit is much used in making jelly by the whites. The Indians also use the fruit.

COMPOSITAE: COMPOSITE FAMILY

Genus *Arctium*. Burdock#*Arctium lappa* L. Common. Used as a blood medicine.Genus *Taraxacum* Haller. Dandelion*Taraxacum officinale* Webber. Common Dandelion. Common. Roots used as a blood medicine.

(ERICACEAE) MONOTROPEAE: INDIAN-PIPE FAMILY

Genus *Gaylussacia* HBK. Huckleberry*Gaylussacia resinosa* Torr & Gray. Black Huckleberry. Used as food.Genus *Vaccinium*. Blueberry, Bilberry, Cranberry*Vaccinium pennsylvanicum* Lam. Dwarf Blueberry.*Vaccinium canadense* Kalm. Blueberry.

The blueberries are abundant. Every hill and open space are covered with them. Blueberry harvest is a great time for the Indians. They go far and near and gather them to sell at so much a box. Car loads are gathered and sold to the nearby stores for shipment, buyers often being sent from St. Paul, Minneapolis, Duluth and the nearby towns to purchase them. The natives also now can them white-man's way. Many are eaten fresh and tons of them are dried on racks in the sun for winter use. These berries are the most abundant fruit of the whole region.

Vaccinium oxycoccus L. Small Cranberry.*Vaccinium macrocarpon* Ait. Large American Cranberry.

Cranberries are very plentiful in the swampy regions and are quite an article of food. Many bushels of them are sold by the Indians each year.

Genus *Arctostaphylos* Adams. Bearberry

#*Arctostaphylos uva-ursi* Spreng and *A. alpina* Spreng. *Me-squah-be-mag*, or, *mesgwah-be-mag* (*mi-squa-bi-mag*, or, *mis-gwa-bi-mag*). The *A. alpina* is also designated, *Be-gwah-dje-me-squah-be-mag* (*bi-gwa-dji-mi-squa-bimag*). Another name is, *Sah-gah-go-me-nah-gah-shen* (*sa-ga-go-mi-*

na-ga-shin). The leaves of these plants are smoked, causing intoxication. They are also much used in the medicine ceremonies, and also as medicine. For a general term, these plants are known to the Indians as kinnikinnik.

Genus *Epigaea* L. Ground Laurel, Trailing Arbutus

Epigaea repens L. Common on the west side of the reservation.

Genus *Gaultheria* Kalm. Aromatic Wintergreen

Gaultheria procumbens L. Creeping Wintergreen. Common on sand ridges near Mr. Thompson's homestead on the reserve. The "berry" was much used as food by the Ojibwa.

RUBIACEAE: MADDER FAMILY

Genus *Mitchella* L. Partridge Berry

**Mitchella repens* L. Much used by the Indians.*

SOLANACEAE: NIGHTSHADE FAMILY

Genus *Solanum* Tourn

**Solanum nigrum* L. Nightshade. Common. Used as medicine and also used in the medicine ceremonies of the Indians.

* The Bois Fort Ojibwa of our day smoke tobacco and must have it on all occasions of ceremony. Formerly he used kinnikinnik, which be obtained as the pulverized inner bark (or leaves) of several plants. Among these were the partridge-berry (*Mitchella repens*), the bear-berry (*Arctostaphylos uva-ursi* and *A. alpina*), the red dogwood (*Cornus stolonifera*), and a species of dog-wood (*Cornus sericea*). They used the leaves of the bear-berry and partridge-berry and the inner bark of *C. stolonifera* and *C. sericea*. The latter was the plant most used and is now still used in certain ceremonies.

This plant grows five or six feet high and is reddish in color, unless it happens to be growing in a shady place, in which case it is greenish. In preparing the kinnikinnik from it, the stems of the plant are gathered green and the red outer bark removed with a sharp knife. The inner fibrous bark is then scraped off of the wood and dried in some container before the fire till it is crisp and brittle and is readily crushed in the hand. It is then "kinnikinnik" and is ready for smoking.

Among the Bois Fort Indians tobacco and kinnikinnik are frequently used as an offering to Manabush and the other manido. They are also sprinkled on the grave boxes to aid the dead on the journey to the spiritland. Tobacco is also used as a peace offering, and so was kinnikinnik in the old times. Its origin is regarded as mystic.

LABIATAE: MINT FAMILY

Genus *Mentha* Tourn. Mint

#*Mentha canadensis* L. Wild Mint. *Nah-may-ben* (*na-me-bin*). Quite common. Used as medicine for stomach trouble.

Genus *Monarda* L. Horse-Mint

#*Monarda punctata* L. Horse-Mint. *Kah-be-sah-ne-gwa-yok* (*ka-bi-sani-gwe-iag*). Used as rubbing medicine, smelling medicine, and also as a remedy for stomach trouble.

CHENOPODIACEAE: GOOSEFOOT FAMILY

Genus *Chenopodium* Tourn. Pigweed

Chenopodium album L. Pigweed. Common. Eaten as greens.

POLYGONACEAE: BUCKWHEAT FAMILY

Genus *Rumex* L. Dock. Sorrel

#*Rumex altissimus* Wood. Pale Dock. Common. Used as medicine.

THYMELAEACEAE: MEZEREUM FAMILY

Genus *Dirca* L. Leatherwood, Moosewood

Dirca palustris L. Moosewood. Used for withes by the Indians.

Genus *Saururus* L. Lizard's-Tail

#*Saururus cernuus* L. Indian Pepper. *We-ne-se-bah-gon* (*wi-ni-si-ba-gon*). Used as stomach medicine.

URTICACEAE: NETTLE FAMILY

Genus *Ulmus* L. Elm

#*Ulmus fluva* Michx. Slippery or Red Elm. *Ah-nib*, or, *ah-nep* (*a-nib*). Quite common and a large tree. Used as medicine for gonorrhea.

CUPULIFERAE: OAK FAMILY

Genus *Betula* Tourn. Birch

Betula lenta L. Cherry Birch; Sweet or Black Birch.

Betula lutea Michx. f. Yellow or Gray Birch. *We-nesek* (*winisik*).

Betula papyrifera Marshall. Paper or Canoe Birch. *We-gwas* (*wi-gwas*).

The birches and poplars are the most numerous trees of the reservation and from an Indian point of view are among the most valuable, especially the birches, for from them their birch bark utensils are made.*

* Birch Bark Utensils: The bark of the white (paper) birch was used in the old times and still is used for making various convenient small vessels, pails, and trays. When made for permanent use, the parts of the article are firmly sewed together with basswood twine and the edges counter wrapped with the same material.

If the article is wished to be made water tight, its seams are sealed with pitch. The following are some of the useful birch bark articles used by the Bois Fort Chippewas: Mococks (in which wild rice and maple sugar are stored), dishes, sap dishes (used in catching maple sap), rice baskets, buckets (*manitoulin*), trays, and winnowing dishes (used when separating the chaff from the rice).

The CANOE is also made from birch bark. The Ojibwa reached his zenith in manufacture when he made the canoe. It is undoubtedly the most beautiful and light model of all the water craft ever invented. The framework is of white cedar or some other light, durable wood; the ribs are thinned to the right thickness with a drawing knife, and when the desired number are obtained, they are steamed, after which they are curved according to the parts of the canoe they are intended to brace. The tops of the ribs are then securely tied to the top plate-piece of the canoe with tamarack roots, or some other tough tying material; this frame is then placed in a sort of rack and the birch bark put on it so ingeniously and so well sewed together and the seams so well closed with pitch, that the finished canoe is water tight and rides on the water like a cork.

Birch bark is placed on the coffins when burying the dead, placed with edges projecting downward along the sides and ends of the coffin. A layer of this bark is also usually spread over the filled grave. This bark is also used in building dwellings and lodges.

DWELLINGS AND LODGES

Besides the medicine lodge, the Bois Fort Ojibwa have the ordinary regulation wigwam, the birch bark camp, the bark house, and the "wickeup."

The birch bark (or cedar or ash bark) camp is made by setting poles in the ground or on top of the ground, in elongated-rectangular ground-plan style. These are firmly fastened together at the top by being tied along a center-ridge-pole. Over this frame the bark is placed so as to make a comfortable dwelling. When the family moves the bark is taken down and transported to the new home; each one carrying a part; each camping place furnishes its own house frame

Genus *Corylus* Tourn. Hazelnut

Corylus rostrata Ait. Beaked Hazelnut. Very common and much used as food by the natives.

Genus *Carpinus* L. Hornbeam. Ironwood

Carpinus caroliniana Walter? American Hornbeam. Blue or Water Beach.

Genus *Quercus* L. Oak

**Quercus rubra* L. Red Oak. *Me-te-go-mish* (*mi-ti-go-mish*); large oak, *Me-te-ko-mesh* (*mi-ti-ko-mish*); small

and braces. Thus in an hour after landing at any chosen site, the Indians have a house to dwell in.

The "wickeup" is simply some posts set in the ground over which a flat roof of brush is erected; at times the sides of the "wickeup" are also closed in with a thatch of small brush, which is firmly tied to the poles and posts. This style of house is quite comfortable in summer. While at times this sort of a framework is added as a sort of porch to a house.

The tepee may be the regular round regulation type of wigwam or it may be of the elongated style. The framework is of poles tied together at the top; over this frame are placed mats of birch bark or of cat-tail flags. The mats of birch bark are peeled from the trees in strips corresponding to the size of the trees from which stripped. The strips are placed end to end and sewed together with basswood thongs; a bark mat thus sewed is often twelve to twenty feet in length and as wide as a strip of bark could be conveniently pulled off the tree. The cat-tail-flag leaves are gathered when full grown in summer and woven into mats from three to five feet in width and from twenty to twenty-five feet in length, strengthened at the edges by being counter wrapped with basswood twine. When put in place, these mats are projected over each other both on the roof and sides, like shingles. An opening is left at the top of the wigwam for the exit of smoke. These wigwams are loose and light and furnish perfect ventilation. The only disagreeable thing about them is the ever smoke nuisance.

The Birch Bark House.—Many of the Bois Fort Chippewas now live in log houses, but an occasional birch bark house still remains to remind one of the old times. The birch bark house was a permanent affair. It is elongated in ground plan. Its framework is of vertical posts to which horizontal pieces, about two inches in diameter, are tied at intervals of almost thirteen inches. The ridge of the roof is about ten feet high and from ten to twenty feet in length. The walls are also about six feet high and the width of the structure about eighteen feet. Poles parallel with the ridge pole make the roof-frame-work. This frame is covered over with birch or cedar bark, matched in shingle style and firmly tied with basswood twine, the roof projecting over the frame so as to form eaves. The doors are at the east and west ends, under the gables. Long poles are placed on the top of the roof and firmly tied down to keep the bark in place. A hole is left in the roof along the ridge pole near the middle of the house for the exit of smoke. The dirt floor is covered with reed mats. On the whole, houses of this type are very comfortable.

oak, *We-sah-ge-me-te-go-mesh* (*wisa-ge-mi-ti-go-mish*). Common. There are many oaks in the region, but were not identified by the writer, though often seen. Oak bark was used in tanning and coloring in the old times. Oak bark tea is also used as a medicine.

SALICACEAE: WILLOW FAMILY

Genus *Salix* Tourn. Willow family, Osier

Salix candida Willd. Sage or Hoary Willow.

Salix balsamifera Barratt. *O-se-se-go-be-mish* (*o-si-si-go-bi-mish*).

#*Salix discolor* Muhl. Glauous or Pussy Willow. Bark used as medicine. The roots are also sometimes used in making medicine tea. The remedy is for stomach trouble, fainting, and trembling.

Genus *Populus*. Poplar, Aspen

Populus tremuloides Michx. American Aspen. Very common in loamy sections, but not so common as the poplars.

Populus grandidentata Michx. Occasionally seen.

#*Populus balsamifera* L. Balsam Poplar, and *P. balsamifera*, var. *candicans* Gray. Balm of Gilead Poplar. *Mah-nah-sah-te* (*manasati*). Used as medicine for internal blood diseases.

#*Populus alba* L. White Poplar. *Ah-sah-te* (*a-sa-ti*). Bark and roots used as medicine. A tea made from these is used for internal blood diseases.

Populus monilifera Ait. Cottonwood. Common along streams and occasionally inland. The buds of this tree are eaten, as are also the clusters of seed capsules with their contained sweet, cottony seeds.*

There are millions of cords of pulp wood of the *Populus* species above on the reservation.

EMPETRACEAE: CROWBERRY FAMILY

Genus *Empetrum* Tourn

Empetrum nigrum L. Black Crowberry. *Ah(n)-tay-go-bin* (*a-te-go-bin*). Common on the reserve. Fruit eaten.

* The cottony part is also chewed as gum.

CONIFERAE: PINE FAMILY

Genus *Pinus* Tourn. Pine

#*Pinus strobus* L. White Pine. *Kah-be-sah-dah-ge-set* (*ka-bi-sa-da-gi-sit*). Used as medicine.

#*Pinus baksiana* Lambert ? Northern Scrub Pine. Used in the following concoction for fainting and fits, etc. A tea is made from the bark of this tree, the bark and root of the glaucous or pussy willow (*Salix discolor* Muhl.), Norway pine and the other pine varieties including *P. strobus* (White Pine), oak (*Quercus rubra* L.), and kinnikinnik (*Arctostaphylos uva-ursi* Spreng).

Pine boughs are used on the ground or floor as a bed on which blankets and other bedding are spread if they are at hand. Wooden dishes and wooden bowls were also made of this wood in the old times.

The pine still standing on the reservation in the fall of 1920 was estimated at 17,000,000 feet B. M.

Genus *Picea* Link. Spruce

#*Picea nigra* Link. Black Spruce. *Say-say-gah-dag* (or, *dug*) (*se-se-ga-dag*).

#*Picea alba* Link. White Spruce. *Me-naig* (*mi-naig*). A tea was made from the roots and bark of this species and the species last above and used for a pain in the stomach and for fainting and trembling, also for fits.

Genus *Abies* Link. Fir

#*Abies balsamea* Miller. Balsam or Balm of Gilead Fir. *Ne-naig-wah-day* (*ni-naig-wah-dag*). Used as medicine for coughs.

Genus *Larix* Tourn. Larch

#*Larix americana* Michx. Tamarack. Practically the whole region just at the swamp line in the "dry" peaty state is covered with tamarack forest from the Nett Lake region on northward into Canada as far as the writer has been in that dominion. The Ojibwa use the roots of this tree to sew their canoes and also in the strong upper wrappings over the edges of same. Tea made from tamarack roots and bark is also used as a general medicine.

Genus *Juniperus* L. Juniper

Juniperus sabina L., var. *procumbens* Pursh. Found in the swampy areas.

Juniperus virginiana L. Red Cedar. Found bordering the streams, but usually on higher ground than the other cedars of the region.

Juniperus communis L., var. *alpina* Gaud.

It is estimated that there is cedar post timber enough in the region to furnish a billion posts. The pulp wood and the cedar posts are now being floated down the streams to Canada where the pulp wood is made into paper at International Falls; the pulp mills there are said to be the largest in the world. There, also, the posts are loaded onto cars and shipped to the States for fencing. Cutting posts and pulp wood is a great industry in this section and will be for many years to come. Cedar bark is also used by the natives in house, wigwam, and wickeup building. The cradle board is also made of cedar. The board, too, is padded with crushed, inner cedar bark, or with moss. Mats are also made from fibrous cedar bark. Graves are also usually inclosed in a pen of split cedar strips or stakes, and a thatch of split cedar is also usually placed on the grave.

OLEACEAE: OLIVE FAMILY

Genus *Fraxinus* Tourn. Ash

**Fraxinus americana* L. White Ash. Used in canoe manufacture, the making of snowshoes, etc. The root-bark of this tree is also used as medicine, being prepared as a tea.

JUNCACEAE: RUSH FAMILY

Genus *Juncus* Tourn. Rush. Bog-rush

Juncus stygius L. Common around lakes. This plant is used in weaving mats.* It also holds quite a place in the myths of the Ojibwa.

TYPHACEAE: CAT-TAIL FAMILY

Genus *Typha* Tourn. Cat-Tail

Typha latifolia L. Common Cat-tail. The flags of this plant are used in weaving:*

*The Bois Fort Ojibwa have several varieties of mats. These are made from rushes, from cedar bark, and from the broad blades

ARACEAE: ARUM FAMILY

Genus *Arisaema* Martinus. Indian Turnip. Dragon
Arisaema triphyllum Torr. Indian Turnip. Jack in
 the Pulpit. A very common plant and much used as medicine by the natives.

LYCOPODIACEAE: CLUB-MOSS FAMILY

Genus *Lycopodium* L. Club-Moss

Lycopodium lucidulum Michx. Common.

Lycopodium selago L. Club-Moss. Very common. Eaten by the Indians.

The mosses are very abundant in this region, many species, no doubt, being represented. The trees hang with it and the swampy areas are covered with it. Moreover, the peat of the region is composed, for the most part, of moss, and flags.

The cradle board was often padded with moss.*

GRAMINEAE: GRASS FAMILY

Genus *Zizania* Gronov. Water or Indian Rice

Zizania aquatica L. Indian Rice or Water Rice or Water Oats. This is the most important wild food plant in the region. It grows along the swampy borders of streams and in the shallow water of the numerous small lakes of the region from the Great Lakes on westward throughout Minnesota to the Red River valley in the state and on northward into Canada. It belongs to the grass family. It is an annual; flowers monoecious; the staminate and pistil-

of the cat-tail flag. Some of the mats are woven coarse, some fine; they are from six to fifteen feet and even twenty-five feet in length and about a yard in width, and are used for bedding and house and floor coverings.

* The following plants were seen but not identified:

Reindeer Moss (Tripe Roche). The writer was told that this moss was eaten by the Indians in the old times, also that the moose feed on it.

Waub-es-sec-pin (Ojibwa name). This place resembles the potato. It grows in wet ground. It is mealy when boiled and is even now occasionally eaten by the natives who eat it with a relish.

Stick-auc-waub-es-see-pin (Ojibwa name). This is a similar plant to the last named above. It is found throughout the region. It is used as food by the natives, being boiled.

late are both in 1-flowered spikelets in the same panicle. Glumes 2, subtended by a small cartilaginous ring, herbaceous-membranaceous, convex, awnless in the sterile, the lower one tipped with a straight awn in the fertile spikelets. Palet, none. Stamens 6. Stigmas pencil-form.—A large reed-like water-grass. Spikelets jointed upon the club-shaped pedicels, very deciduous. Glums 3 to 9 feet high; leaves flat, 2 to 4 feet long (and lie flat on the water when they first emerge; later they stand erect and finally decline at the tips), linear lanceolate; lower branches are of ample pyramidal panicle staminate, spreading; the upper erect, pistillate; lower glume long awned, rough; styles distinct; grain linear, slender, 6" long.

This rice is one of the leading articles of food of the aborigines and was much used in the old time.*

* The writer became acquainted with this plant at Nett Lake, Minnesota, where he had charge of the Bois Fort Indian Reservation as Superintendent and Special Disbursing Agent from 1909 to 1914. Nett Lake, the lake that bears that name, covers three-fourths of a township in area and is in the shape of a great lobster's paw with the claws pointing eastward, the major claw being the northern member. It is a very shallow lake, the greater part being less than four feet in depth. In this the wild rice grows in such quantities that the lake looks like a great barley field.

The rice does not ripen all at once, so can not be cut like a field of barley. But as the grain drops from the stalk very easily when ripe, it can be pounded off into a canoe with a stick, and the green grain still left to ripen.

The rice begins to ripen the latter part of August. The Indians then have a secret ceremony and much powwowing. Then the chief medicine men give permission for them to go out and gather rice.

With canoes, the Indians go among the rice and beat the heads over the canoe with short clubs. This they keep up till they have a canoe full of rice. Then they go to the village with it.

At the village, the rice, which is just past the milk stage when gathered, is parched and scorched in a large iron kettle, inclined over the fire so that a woman can stir it to keep it from burning. By this scorching process the hulls are all burned from the kernels, or are so dried and charred that they can be loosened and removed by the next process.

As soon as the scorched rice is removed from the kettle and is cold enough to handle, it is placed in a cylindrical hole in the ground that has been lined with cement or marl from the lake. Then the Indian man of the house gets into this hole and tramps the hulls off with his feet. After the tramping is completed, the chaff, dust, and ashes are winnowed from the rice by the women. The product is then sacked and is ready for sale as breakfast food. It sells at not less than thirty cents per pound at the village, and as high as fifty cents per pound in the neighboring cities.

This rice makes good gem cakes. It is also used to stuff ducks and other fowls when preparing them for dinners. Orders for rice have

EQUISETACEAE: HORSETAIL FAMILY

Genus *Equisetum* L. Horsetail

**Equisetum pratense* Ehrh. Common Horsetail. *Wesh-go-be-dje-beake* (*wishgobidjibik*). Very common. The Indians eat the tubers of this plant. A tea made from this plant and horse-mint is used for stomach trouble.

come even as far as Salt Lake City for rice for making dressing for ducks for Thanksgiving dinners.

In preparing it as breakfast food, it is prepared and cooked the same as ordinary rice and can be cooked in as many different ways. The preferable way, however, is to take a cupful of the rice and pour a cupful of boiling water on it at bedtime and then cover it over so as to keep the steam in and let it set till morning, then put it on the stove and evaporate the remaining water. It is then puffed-rice, and is delicious with sugar and cream.

The Ojibwa sometimes boil the excrements of the rabbit with the rice "to season it" and are said to esteem it as a luxury. To make that dish still more palatable, and one of the highest epicurean dishes, they also occasionally take a partridge, pick off the feathers, and without any further dressing except pounding it to the consistency of jelly, throw it into the rice, and boil it in that condition.

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